6th INTERNATIONAL CONFERENCE ON SPIRITUALITY AND PSYCHOLOGY

[ICSP2021]

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SOCIAL MEDIA ADDICTION AMONG INDIAN YOUNG ADULTS DURING COVID-19

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Abstract

Purpose: The study aimed at understanding the prevalence and the paramount significance of the abuse of social media and its' addiction during the present COVID-19. It also aimed at understanding how accustomed or habituated people were, in terms of social media use.

Methodology: A survey was conducted on 204 young adults in India using the shortened version of Social media Addiction Survey. Reliability and Validity Tests were conducted along with One Sample t-test to understand the effect each item had on social media use among the participants.

Findings: Internal consistency coefficient (Cronbach's alpha coefficient) was 0.896, and inter-item validity was significant at 0.01 level, i.e. at a 99% confidence interval. The majority of the participants were eager to use social media and be informed about the content shared by their respective groups. Most participants also tend to spend more time on social media when they are alone.

Study Implications: The paper suggested that the Social Media Addiction Scale's shortened version is applicable for different populations irrespective of their age group and cultural backgrounds. However, further research indicated in social media's domain and field in terms of addiction among more young adults is recommended.

Keywords: social media addiction questionnaire, young adults, COVID-19, the prevalence of social media use, social media addiction

Social Media Addiction Among Indian Young Adults During Covid-19

The internet has expanded to become a daily part of peoples' lives. For most individuals, it represents an informative tool and an opportunity to connect with others socially. It also involves self-education, economic betterment, and freedom from shyness and paralysing inhibitions (Aboujaoude, 2011). The internet also enhances an individual's quality of life and their well-being, subjectively, for others, it leads to a state that represents the standard definition of mental disorders, according to DSM,

> "A clinically evident behavioural or psychological ailment associated with present distress or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom" (American Psychiatric Association, 2000)

Social Network Sites that involve Twitter, Instagram, Facebook, and more enable individuals to impact others' decisions through a connected network. The physical reality and the virtual reality of the internet are not as different from each other since they are not unrelated anymore. Just as events in the real world influence internet activities, the vice-versa also takes place most of the time (Louni & Subbalakshmi, 2014). As Shobhaa De (2020) rightly said,

> "Untouched by the footsteps of migrant workers in the hot sun, we rant on social media. Moreover, as always, what helps us to retain our sanity in moments like this are words. Our own words and words from loved ones but even more than that, words from gifted writers who spin stories out of universal experiences, from thoughts and ideas half-formed in our minds."

Activity incentives originate from the inner emotional desire to participate in enjoyable activities to enhance a sense of belongingness. On the other hand, the origination of social incentives is from interactions with others that deem and perceive as rewarding. Several new sensory incentives involve investigating neoteric and factual information, and positive reinforcement involving monetary funds and rewards are mere expectancies to achieve a familiar sort of commercial acquisitions. Particular to organisations and the use of technology is the concept of self-reactive incentives that involve the attempt to regulate dysmorphic moods such as depression and boredom (Eastin & al., 2006). Most research has focussed on three primary models of addiction. Addictions of different media involve a specific type of addiction in terms of behaviour in which chemical substance is absent (Marks, 1990; 2006).

Social Media Outbreak During COVID-19
The antecedent phases of the COVID-19 outbreak involved little factual information. Social Media content creators churned out half-baked theories and blatant falsehoods. As observed in the past outbreaks, absence of reliable information coupled with an increasing death ratio resulted in panic, confusion and the suspension of critical thinking and fact-checking abilities. The panic eventually reached a point where the WHO released a 'massive infodemic' of COVID-19 misinformation. They leveraged similar tools causing the infodemic to quell it. However, it also created simple infographics and content and shared accurate information on their social media handles. Simultaneously, social networking platforms or sites like Instagram, Twitter, Facebook, WhatsApp, YouTube, and TikTok took upon themselves to clean up their sites. They used fact-checking agencies and AI-based tools to screen incorrect content and provide factual information (Parikh, Desai, & Parikh, 2020).

Significance of the Study

The study aims at understanding the prevalence and the paramount significance of social media abuse and addiction during the time of lockdown in the COVID-19 outbreak. Since most individuals are either working or studying from home, it is evident that each of them struggles with time management and multi-tasking. Most people are prone to burnout solely because they worked extra hours and eventually began to undergo disorganised and disordered routines in their lifestyles. This study aims at understanding how accustomed or habituated people are, in terms of social media use.

Literature Review

Previous research studies have been conducted on media communication and indicated that most communication technologies provide an invisible shield that protects timid or shy individuals when they interact or participate in social situations (Yan, 2015). There are several research studies conducted in the field of addiction concerning social media. However, during the pandemic, i.e. COVID-19, individuals worldwide face difficulty and perplexities in optimal functioning daily. The classification of literature reviews depicted in the following themes:

Figure 1

Showing the categorisation of themes classified in the Review of Literature
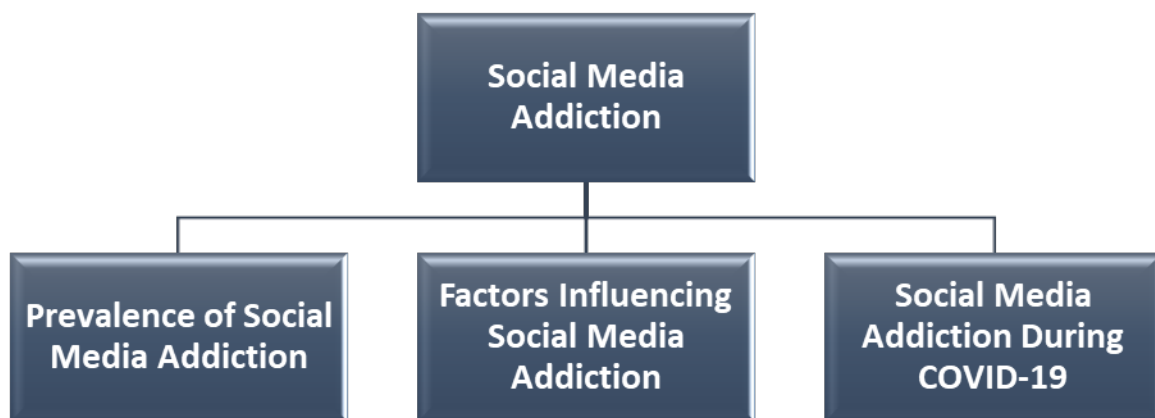
Social Media has been a domain of study for the past several years, and the research has been quite dense. However, with the dense research studies in this domain, this paper must shed light on its prevalence. Therefore, referring to the map above, the division of themes of the related literature works is based on the factors that primarily influence social media addiction among young adults.

Prevalence of Addiction Concerning Social Media

Several research studies highlight the prevalence of social media, and its addiction has proven significant. Some studies shed light on the same matter, and the following are reviewed based on its prevalence.

A recent research study by Leung et al. (2020, pp. 1059-1069) aimed to investigate whether specific scales were appropriate for use among individuals in Hong Kong and Taiwan. The scales included Smartphone Application-Based Addiction Scale (SABAS), Internet Gaming Disorder Scale-Short Form (IGDS-SF9), and the Bergen Social Media Addiction Scale (BSMAS), used among individuals in Taiwan and Hong Kong. The quantitative study involved different subsamples from Taiwan (n=336) and Hong Kong (n=306). It was indicative that the original uni-dimensional structures of SABAS, BSMAS, and IGDS-SF9 confirmed the factorial analysis through the same in both subcultures. According to the results, the unidimensional structures of the BSMAS and IGDS-SF9 did not vary across the two Chinese cultural areas, i.e., Taiwan and Hong Kong. The SABAS also established invariance of measurement after some model modifications.

Similarly, Turel et al. conducted a study in the year, (2018, pp. 84-88) which examined the distortion in time and the individual's participation in non-social media use tasks. The tasks involved cues concerning social media that consider the high risk of addiction in social media. The study also aimed to understand the versatility of the at-risk v/s low/no-risk classification of the said distortion. The study concluded that the at-risk group portrayed compelling higher or ascending estimation of time bias and the low/no-risk group portrayed convincing lower or descending estimation of time bias. The bias characterised conclusive positive correlation with the scores of addition concerning the use of Facebook. It was also influential, during its combination with estimates of self-reported Facebook use, which increased in extent, in classifying people to the two categories.

Social Networks and social networking sites have been trending ever since New Media's introduction in the community. Monacis et al. conducted a study in the year (2017, pp. 178-186) along the same lines of social media and social networking sites to shed light on the prevalence of its use. The study aimed at testing the Italian version's psychometric properties of the Bergen Social Media Addiction Scale (BSMAS). It also provides empirical data of 769 participants for the relationship between attachment styles and social networking sites addiction. Hence, the invariant measurement entrenched and settled at configuring, exacting invariances, and metrics athwart age groups and at configuring the levels of metric values across gender groups. Several indicators supported internal consistency. The theoretical associations between addiction to Social Networking Sites and styles of attachment was also generally supported. (Hawi & Samaha, 2016, pp. 576-586) also investigated the association between Social Media Addiction, Self-Esteem, and Life Satisfaction. The study attempted to provide and dispense to the information and peoples' understanding that boosted and strengthened this phenomenon. The study examined the accord and conjunction between self-esteem, social media addiction, and the said satisfaction with University students' lives. The results indicated that a singular determinant model of SMAQ had remarkable psychometric features and characteristics and altitudinous internal consistency. Also, the use of social media in terms of addictive behaviours adversely related to self-esteem, and the latter had a definitive and conclusive concordance with life satisfaction

Social Media scales have also proven to be an evident source of research material that validated the Social Media Disorder Scale by Eijnden et al. in the year (2016, pp. 478-487). It consists of symptomatic cessations to differentiate between discombobulated and high-appealing comfortable 2198 social media users. The results portrayed that almost all short social media disorder scale items demonstrated heightened awareness and exactitude. A few platforms involving social media users elicited a heightened danger than the rest. The discombobulated patterns of eating users altered and contrasted from comfort food users, specifically in the number of posts they disseminated on social media platforms such as Instagram, WhatsApp and Facebook.

Factors Affecting Social Media Addiction

Since the world debate on nature v/s nurture is ongoing forever, the factors influencing each aspect of an individual's life depends on these two significant factors. However, comprehending the factors that play a prominent role in an individual's ability to be addicted or abuse social media depends entirely on the debate's patter part. The following are studies which focus on the various factors that have affected social media addiction in different contexts and cultures. Since the number of research studies involves similar themes, the researchers have analysed the studies based on critical themes.

In 2019, Lian et al. (pp. 22-29), (Zhou & Leung, pp. 1-17) and, (Mamun & Griffiths, pp. 628-633) studied the effects of social media on human life and its consequences on human health in terms of recognised social network sites (SNS)-game addiction and gratifications, aloofness, convenient disinterest, self-respect, and constant use of games on social networking sites. The studies independently conducted involved 342 and 300 participants, respectively. The results indicated the following predictors of social media effects on human life:

i.   Issues like fixation of online life and web-based life and the effect of online life on Indian youth and attempted to focus on how to defeat this dependence.

ii.   Desolation and convenient disinterest significantly anticipated the extent of the use of games on social networking websites and the heightened possibility of addiction

iii.   Male Social Networking Sites game addicts involved leisure activities, being aloof, disinterested and excited by successfully conquering artificial or fake money and achievement as a sense of accomplishment

iv.   Self-esteem insignificantly predicted addictive behaviours towards the use of Facebook.

v.   The prevalence of Facebook Addiction was 39.7%

vi.   Being single and having less or no involvement in activities that pertained to physical fitness predicted the dangers of the rise in addictive behaviours towards using Facebook. It also disturbance in sleep, exposure to Facebook, and symptoms of depression.

In 2018, (Nayak, pp. 164-173) and (Durak, pp. 1-15) aimed to determine the effects of addiction, performance and adolescents' smartphone usage on their socio-demographic details. The studies aimed to examine the variables related to nomophobia. The studies individually conducted involved 429 high school students and 786 students, respectively. The results of their quantitative research studies included:

i. Females tend to use smartphones more often than males.

ii. The severity of the performance in male students portrayed as a result of the study

iii. Excluding developmental changes and attitudes, female students were hardly affected by the effects of Smartphone addiction, unlike the male students who neglected work, felt anxious and lost control of themselves.

iv. The adolescents' nomophobia levels were average

v. Noncommunication, a sub-determinant on the scale of nomophobia, was at the highest level.

vi. Addictive behaviours towards the use of social media also most significantly correlated with adolescents' nomophobia behaviour levels.

vii. Locus of control portrayed the least conclusive and definite association with nomophobia behaviour levels.

However, in 2017, studies from various researchers focused on assessing various social media platforms as predictors of young adults' differentiated behaviours and high school students. Shettar et al. (pp. 325-329) assessed the patterns of one social media network, i.e. Facebook and the participants' use of Facebook on loneliness. The study involved students from the Yenepoya University, i.e. 100 post-graduate students. The results indicated that an additional one-fourth (26%) portrayed addictive behaviours towards the use of Facebook, and 33% determined a probability of showing addictive behaviours towards using Facebook. The existence of positive correlations associating addictive behaviours towards Facebook and the extent of experiences of desolation and aloofness are also portrayed.

Similarly, in 2017, (Ahmed & Sathish, pp. 21-42), Nagaddya et al. (pp. 187-193), (Longstreet & Brooks, pp. 73-77) and, Shensa et al. (pp. 150-157) also studied the influence of social media and social media games on differentiated behaviours. The studies conducted on adolescents and young adults involved 286, 280, and 207 students, respectively. The results that apart from the Combined Technology Acceptance Model and Theory of Planned Behaviour constructs Perceived Enjoyment, Flow and Social Network Intensity has a significant impact on Behavioral Intention and Use Behaviour towards Social Network Game. 68.9% of adolescents think messages, images, broadcasts with content deemed pornographic or sexually shared/posted on online platforms in terms of social networking, varied in their sexual behaviour. Variables that mainly elucidated the amount of disclosure of the content on the social network platforms on adolescents' sexual behaviour, that involved

gender (male), use of social networking sites during holidays, and using social sites for leisure activities. Life satisfaction has essentially vital impacts on generalised internet addiction and specific addictive behaviours towards social media. For individuals who are addicted, deep-rooted issues result in demoting and deteriorating their level of satisfaction and propulsive continuation of elevated addictive behaviours towards technologies involving the internet. PSMU was associated with an elevation in the symptoms of clinical depression. The portrayal of an increase in the recurrence of social media use was also permanently related to a heightened syndrome of clinical depressive. PSMU mainly determined the association between SMU and depressive symptom.

Blackwell et al. conducted a research study (2017, pp. 69-72) examining whether Neuroticism, Attachment Styles, Fear of Missing Out (FOMO), and Extraversion predicted the use of social media and addictive behaviours towards the same amidst young adults. FOMO has always been a topic of opaque research in several domains of studies. However, this particular study paved the way for readers and future researchers to understand the said factors as predictors of social media addiction and related misbehaviours. The study results concluded that younger age, neuroticism, and fear of missing out predicted the excessive use of social media among the said participants. Fear of missing out (FOMO) also anticipated addictive behaviours towards social media. Prevention and anxiety in terms of attachment also indicate the addictive behaviours towards social media use among participants.

In 2016, Shah et al. (pp. 24-26), Nath et al. (pp. 1-10), (Kircaburun, pp. 64-72) studied the conflict arising from adolescent and parent relationships, evaluate Internet addiction gains an accurate understanding of the pervasiveness, precautionary factors, and harmful effects that frequently relate to the disorder. The studies also aimed at determining the unambiguous and indefinite impact of regular use of internet sources, addictive behaviours of social media and self-esteem to levels of depression among evaluated adolescents involved the experimentation of a model. The study included high school students and young adults involving 188 medical students and 1130 adolescents, respectively. The studies conferred and concluded that cultural societies as similar to India, scurrying towards urbanisation and development, including segregation between parents and adolescents over the use of the said sites and concerning monetary systems to independence and escort, as promoted by similar activities. The canvass also accentuates that the value-based systems and lifestyle play an essential role in finding solutions to similar conflicts. 46.8% of medical students resulted in an increased risk of Internet addiction due to expanded years of exposure to online platforms. Men were further prone to progress into an online relationship. Disproportionate use of the internet also resulted in inadequate and deficient college administration and feeling dismal, worried, and clinically depressed. Social media addiction and self-esteem predict 20% of regular use of the internet. Clinical depression also remains correlated with self-respect and, regular use of internet unambiguously. Similarly, addictive behaviours toward social media were affecting depression ambiguously.

Social Media Use and Addiction during COVID 19

The present COVID Crisis has played an essential role in disheveling individuals' lifestyles, regardless of culture and age. However, a vast population has found it easier to get accustomed to the new normal and the new lifestyle. In contrast, the other half of individuals are still finding it hard to transition amidst the trying times. Several research studies focussed on the effect of social media and media influences on individuals during the present COVID-19 situation. Most of them are solely due to understanding the effects of social distancing and determining the same tampering effects. The studies selected for this literature review consists of latest research studies conducted in the year 2020.

Allcott et al. (2020, pp. 629-676) focussed and aimed to study the acceleration and progression of social media that influenced anticipation about the possible communal benefits and concerns about sabotaging such as clinical depression, addictive behaviours, and political dissipation. In a randomised examination, the researchers found that making the participants' Facebook account inactive for a month before the 2018 U.S. midterm election influenced and resulted in a significant reduction in online activities, while an evident increase in offline activities viewing television privately and mingling with family and friends. There was a reduction in news knowledge that is factual and a political stance—elevated perceptive contentment. There is a continual abatement in post-test results of using Facebook among respondents.

In China, Li et al. in the year (2020) conducted a quantitative and qualitative evaluation of social media posts that originated from Wuhan, Chinese from the online journal podium, Weibo during the pandemic's initial stages, i.e. COVID-19. The collection of 115,299 WeChat posts during the period involved 2956 posts daily, implying a lowest 0 and highest of 13,587. The statistical analysis found a healthy and beneficial interrelationship between the statistic of Weibo posts and the city's aggregate count of disclosed cases. It was roughly ten additional cases of COVID-19 per 40 online posts concerning social media. This size of the aftermath was also more compelling and essential than the measurement and monitoring for the remainder of China that Hubei Province in Wuhan. They believed when contemplating the estimated number of posts of Weibo to the amplitude of cases in Hubei. The interpretative analysis of 11,893 posts concurrently the first 21 days of the study period with COVID-19-related posts uncovered four forerunner classifications. It eliminated WeChat discussions about the dominant and outstanding originator of the endemic, altering hygienic and sanitation traits of the outbreak, the public's reaction to outbreak control and the responsible feedback measures. The results also provided acumen into the beginning and initiation of the outbreak. The evaluation basis involved the statistical and interpretative analysis of Chinese social media data in Wuhan City.

Since the catastrophe is dependent on the large-scale change of individual behaviour and several significant cognitive weights and stresses on individuals, acumen from the communal and developmental sciences helped align human behaviour based on recommendations of

epidemiologists and public health experts. (Bavel, et al., 2020, pp. 460-471) focusses on pieces of evidence originating from a broad range of investigative topics that coincide with universality. It involves studies on deviating and directing threats, sociocultural influences an individual's behaviour, scientific communication, appropriately moral decision-making and leadership. The paper introduced three primary and essential factors that barricaded the path of precaution. The factors involved:

i. Individuals being careless of the dangers they run.

ii. It was also opposed to human characteristics for individuals to confine themselves and restrict their physical movements in timid isolation as a method of guarding others

iii. People unintentionally manoeuvred as an enduring danger to themselves and others.

The study provided visions that originated from the last century of work on the relevant topics in communal and developmental sciences that assist public health officials in anticipating the impingement and massive effect of the current pandemic.

(Roy, Tripathy, Kar, Sharma, Verma, & Kaushal, 2020, pp. 1-15) conducted a research study during the current pandemic to assess the amount of knowledge, behaviour, experiential anxiety, and personal needs of healthcare in terms of mental well-being amidst the adult Indian population. The conduction of the study involved the administration of a semi-structured questionnaire through an online survey study. A total of 662 responses were received. The study also concluded that The results indicated that an intermediate or piddling level of knowledge about the pandemic and sufficient knowledge about the behaviour towards COVID-19 portrayed people's willingness to follow the guidelines of the government concerning quarantine lockdown and social distancing. The levels of anxiety levels were high. 80 % of the respondents were worried about the understanding of the pandemic. 72% of the participants emphasised the absolute necessity to adopt the use of gloves and sanitisers. Difficulties in sleep patterns and paranoia about individuals amassing COVID-19 infection and the discombobulation relevant to social media reported in 37.8 %, 12.5 %, and 36.4 % of respondents.

An enormous aggregate of people is vitiated by the COVID-19, which is expeditiously progressing worldwide, common apprehension and anguish among the general public inflated in several regions. Fear and worry have also risen in the eyes of society. Similarly, (Lin, 2020, pp. 1-21) conducted a study to shed light along the same lines. The findings indicated that the accurate reports or news and knowledge published on various online platforms, including social media, the angst and disfigurement tended to deteriorate. The Facebook event, "I am ok, you get the medical mask first" conveyed a pharmaceutical preventive, therapeutic mask, unnecessary for each individual. However, the superlative and ultimate effect of using the same masks results in abandoning them to those who genuinely need them. Depoux et al. in the year (2020, pp. 1-12) emphasised that information travels faster over online platforms, mainly social media and stampede and dismay spread among individuals

was more rapid than the virus itself. The study aimed to highlight the impact of reporting in the media and the general public's sentiments. The influence claimed regarding the decision making processes and the discontinuation of particular services in the public and private sectors, involved airline services that are usually unreasonable and asymmetric to the appropriate public health needs. The constructed principle resulted in images highlighted the physical aspect of the critical situation during COVID-19. It implied visual images of isolation and lockdown. The principle was associated with the community in terms of people and places, that bracketed and allied with the visual symbolism involving Chinese eating outlets, Chinese excursionists, and other encumbrances from Asia. It was preeminent in extensive and widespread disbelief and upheaval of racist discrimination.

(Kadam & Atre, 2020, pp. 50-62) also aimed to portray a record and narrative explanation of responses through social media and the general society to the pandemic that affected its medical jurisdiction regulations in India. India has over 350 million individuals who regularly use social media and a considerably large percentage or degree of who are unaware of fact-checking sources. The impact of social media effectively used to control Ebola. The acceptance of the Ebola vaccine and other vaccines recommended measures. These measures involved circumstantial and credible information system of sharing and an integrative and incorporating team of experts in gathering dossier and accurately interpreting from a series of online platforms concerning social media. The social media platforms helped apprehend and appreciate peoples' perspectives and feelings and disclose initial falsity signals and obfuscation.

Similarly, Gao et al. (2020, pp. 1-20) aimed to construe the popularity and dissemination of two significant mental disorders, that involved anxiety and depression in association with the Chinese population. The study examines the same relationships with online platforms' exposure concerning social media through quick assessments during COVID-19 outbreak. The study concluded that the significantly elevated prevalence of mental health problems was definitely and categorically associated with frequent exposure time concerning social media during the outbreak of COVID-19 pandemic. The significance of anxiety, depression and the combination of the two found to be 22.6%, 48.3%, and 19.4% respectively, during COVID-19 pandemic in Wuhan, China. It also conferred that more than 80% of the respondents also self-reported being frequently exposed to social media.

Above all, the misinformation from social media and its effects on the population overall was quite significant. Therefore, to throw light on the same, Pennycook et al. in the year (2020), investigated why people believe and spread accurate content on the news about the pandemic, COVID-19. The study tested an intervention intended to enhance the content that people communicate on social media. Transversely, in two studies involving more than 1,600 participants, the researchers imperatively found evidence and assistance for the interpretation and notion that individuals disseminate false and unreal news about COVID-19 in section or sectors because individuals unsuccessfully think sufficiently about the possibility of reliable content. There were two studies conducted. It conferred that participants were discriminating

between certain and unreal news, primarily when individuals determine what they would publish or circulate content on social media, relevant to when individuals are questioned directly regarding information certainty. Participants engaged in more analytical thinking and had more excellent scientific knowledge also discerned in their beliefs. It found an uncomplicated indication and expression at the origination of the study. It meant questioning participants to assimilate the veracity and truthfulness of a non-COVID-19-related headline. It also implied more than doubled the level of true discernment in participants' sharing intentions.

Need for the Study

This study's primary need was to understand the prevalence of individuals' attitudes in India towards social media addiction and to use social media, which has elevated due to the lockdown. The Literature reviews can be concluded and conferred with the fact that most studies focus on how individuals tend to use social media during the lockdown and pandemic to understand and stay aware and updated with information, in some cases, misinformation. The paper also aimed to validate and determine the reliability of the shortened version of the Social Media Addiction Survey, used in this study.

Research Gap Identification

i.   Evidence Gap, which implies that the findings from prior studies have also mentioned a significant influence in social media use among populations, perhaps, the results are contradictory when examined from a different perspective and more abstract perception.

ii.   Methodological Gap implies the necessity of a repertoire of methodologies in research studies to generate novel observations and acumen to avoid inaccurate results. Especially during the pandemic trying times, which has influenced a massive population of individuals, the methodological gap in this research involves the lack of research studies determining social media addiction on Indian young adults. There are not enough research studies which determines the validation and reliability of the Social Media Addiction, Short Form Version.

iii. Population Gap implies that the research concerning the inadequately represented population remains under-researched in the evidence base or prior research. The recent literature has proved a population gap among the Indian Youth.

Figure 2

Research Gap Identification
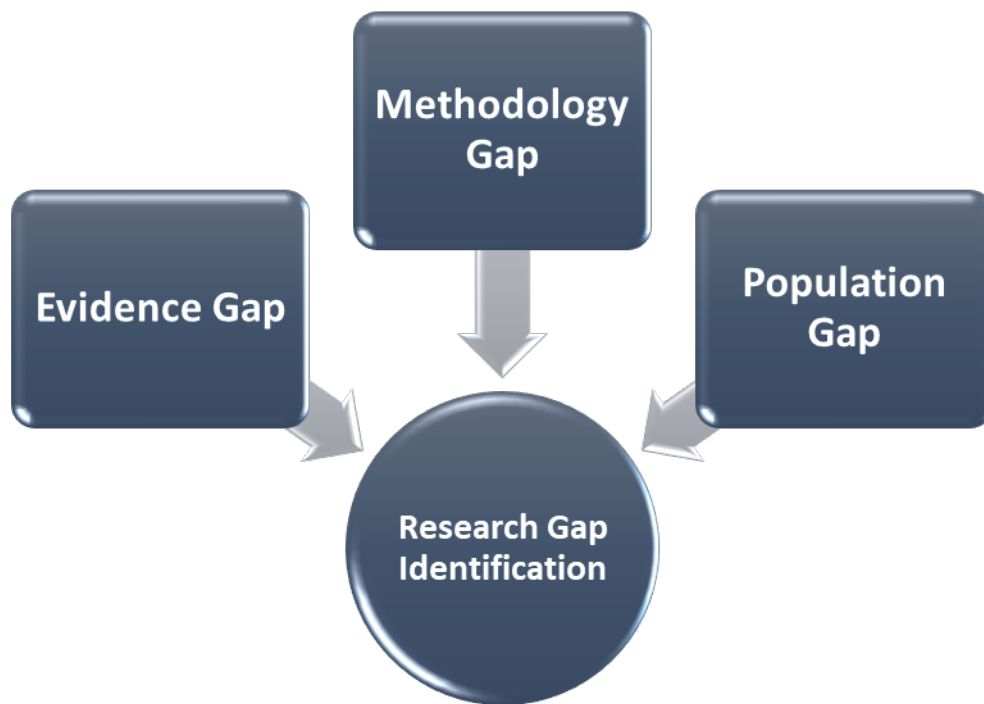
Methods and Materials

Research Question

   i.   What is the prevalence and significance of social media abuse and its' addiction during the present COVID-19?

Participants

The participants chosen for this study were young adults of mixed gender between 18 and 30. The gender ratio included 44.3% (n=90) male respondents and 55.7% (n=113) respondents. The age groups divided into three groups namely, 18-22, 23-26 and 27-30; the percentage ratio included 25.6% (n=52) participants differed between ages 18-22; 41.4% (n=84) participants differed between ages 23-26 and 33% (n=67) participants differed between ages 27-30. All the participants' educational qualifications were from PUC or +2 to PhD. It found that 14.8% (n=30) participants belonged to a Joint Family, while the rest 85.2% (n=173) participants belonged to nuclear family background. All the participants were either familiar with or utilised various online platforms for social media, i.e. Instagram, Facebook, SnapChat, Twitter, YouTube, and WhatsApp.

Sampling Technique

The sampling technique used for the study was random sampling, wherein participants between the specific age group were chosen at random through the online method of data collection.

Tools and Measures

The data was collected online from a Google Form carefully curated by the researchers. The data collection process involved the following three forms:

Informed Consent Form

The informed consent form was a brief introduction of the study's purpose, along with the Terms and Conditions. Since all the participants were adults, the consent form also included the Confidentiality terms for ethical considerations.

Demographic Details Sheet

The demographic details form consisted of general contact information of all the participants such as Name, Age, Gender, Educational Qualifications, Occupation, E-mail, Phone Number, Marital Status, and Type of Family. The demographic details sheet also involved the list of social media apps that the participants use. The social media platforms included in this sheet were YouTuve, WhatsApp, Facebook, Twitter, Instagram and Snapchat. According to a survey by (Clement, 2020), 2 billion internet users use social networks. This number has been increasing since mobile apps, and social networks through mobiles phones are gaining traction.

Social Media Addiction Questionnaire

The Social Media Addiction Questionnaire originates from the Social Media Addiction Scale (Sahin, 2018). The questionnaire was used on the participants to understand their attitudes and behaviours towards using Social Media. The Social Media Addiction-Student Form is a 5-point Likert scale consisting of 29 items. These items involve four factors or determinants, i.e., practical problem, virtual tolerance, practical information and virtual communication. The analysis implemented statistically indicated that the scale's reliability and validity evaluate the addictions concerning social media of school students in high school, secondary school, and university. Internal consistency coefficient (Cronbach's alpha coefficient) of the original scale was 0.93 for the full scale and the respective values differing and extending from .81 to .86 for each of the determinants. The test-retest coefficient was 0.94.

However, for this study, the questionnaire was modified to fit the clinical settings of the Indian participants. The questionnaire's primary goal is to determine or estimate and evaluate the levels of addiction among Indian young adults. The five-point Likert Scale in the 20-item questionnaire required participants to rank certain statements ranging from "Strongly Disagree" to "Strongly Agree". Participants rate the frequency of each experience on the five-point Likert Scale with the following:

The five-point Likert Scale did not provide scores as referred to "1" implying "Strongly Disagree; "2" implying "Disagree"; "3" implying "Neither Agree nor Disagree"; "4"

implying "Agree"; and "5" implying "Strongly Agree". The reminder to the participants made that there were no right or wrong answers for their choice. The scale is aimed at understanding the attitudes and behaviours of participants towards social media use. It is conducted explicitly during the COVID-19 lockdown.


Procedure

This study is a quantitative study that involves a survey method that was provided to participants of ages 18 to 30 of age through an online platform using Google Form. The participants expected to read the consent form and acknowledge that they have understood the same. The participants filled in the demographic details sheet, which consisted of their primary and general information, post which the participants were required to answer the questionnaire. After submitting the form, a note from the researchers declaring that their responses will remain confidential and used for research purposes. The data was analysed using SPSS 21. The conduction of the reliability test and the validity test portrays the credibility of the questionnaire. Since the questionnaire is a short form of the original survey, the simple one-sample t-test conducted intends to understand the significance of each item concerning the 204 participants' responses.

Results

The study aimed to understand the prevalence of attitudes of individuals in India towards social media addiction. Also, the participants' using social media has elevated with time spent, due to the lockdown using the modified version of Social Media Addiction Questionnaire (Sahin, 2018). The study was conducted on 204 young adults between the ages of 18 and 30 through an online survey method of data collection using Google Form. The demographics of the participants have been portrayed in the following pie charts, respectively:

Figure 3

The ratio of Gender of the 204 Participants

Gender
204 responses

44.6%

55.4%

● Female
● Male
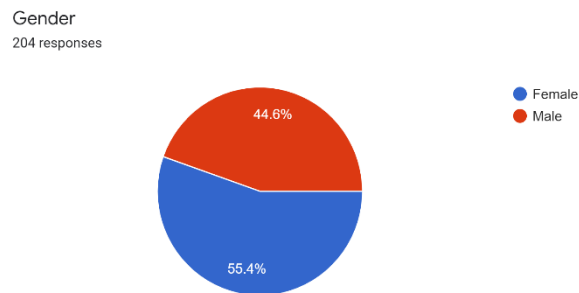
The participants' age was categorised into three groups, i.e. 18-22; 23-26 and 27-30, to have a clearer and systematised method of collecting data. The Age Ratio of the participants was as follows:

Figure 4

The ratio of Age of the 204 Participants

Age
204 responses

33.3%

41.2%

25.5%

● 18-22
● 23-26
● 27-30
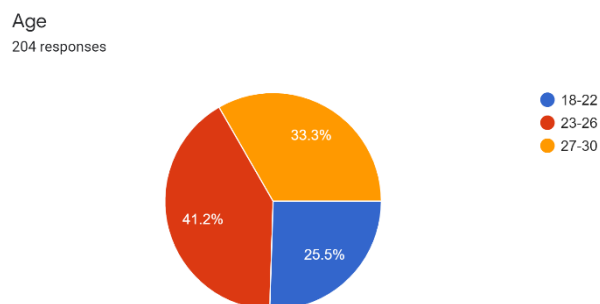
The educational qualification of the participants ranged from PUC/ +2 to PhD scholars. The ratio of the participants in this aspect is as follows:

Figure 5

Showing the ratio of educational qualifications of the participants
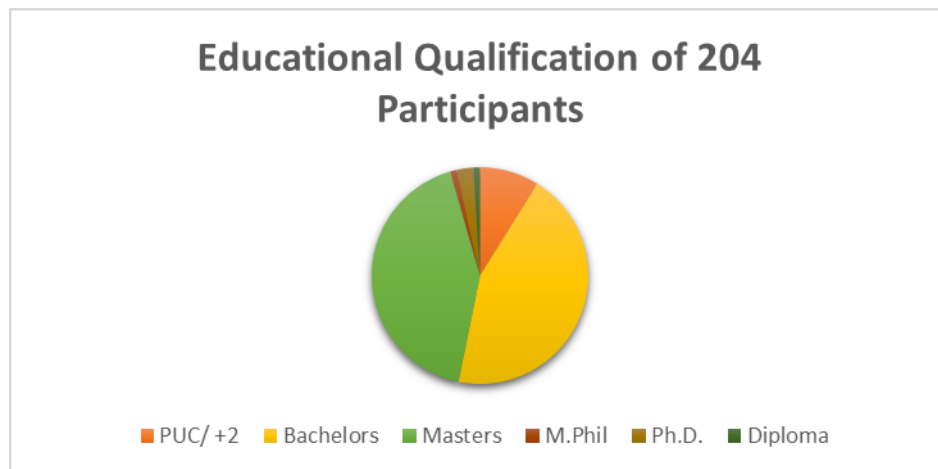
The Type of Family of the participants was divided into two groups at large, i.e. Joint and Nuclear. The ratio is as follows:

Figure 6

The ratio of Type of Family of the 204 Participants
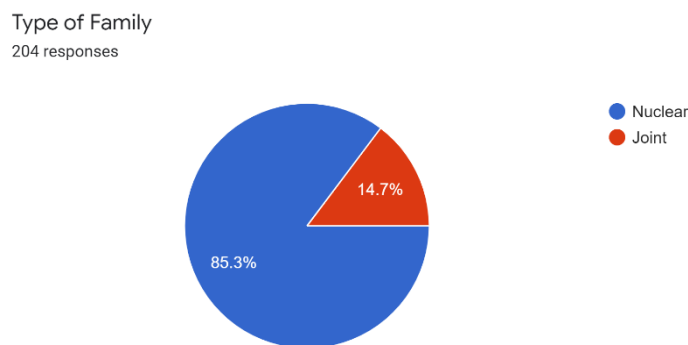
The participants chose the number of Social Media Platforms that they use. The social media platform options provided to the respondents were Facebook, Instagram, YouTube, Twitter, Snapchat and WhatsApp. The graph of the ratio is as follows:

Figure 7

Showing the Social Media Platforms that the 204 participants are a part of

What Social Media Platforms are you a part of?
204 responses

Platform	Count (Percentage)
Facebook	156 (76.5%)
Instagram	176 (86.3%)
Youtube	162 (79.4%)
Twitter	63 (30.9%)
Snapchat	63 (30.9%)
WhatsApp	197 (96.6%)
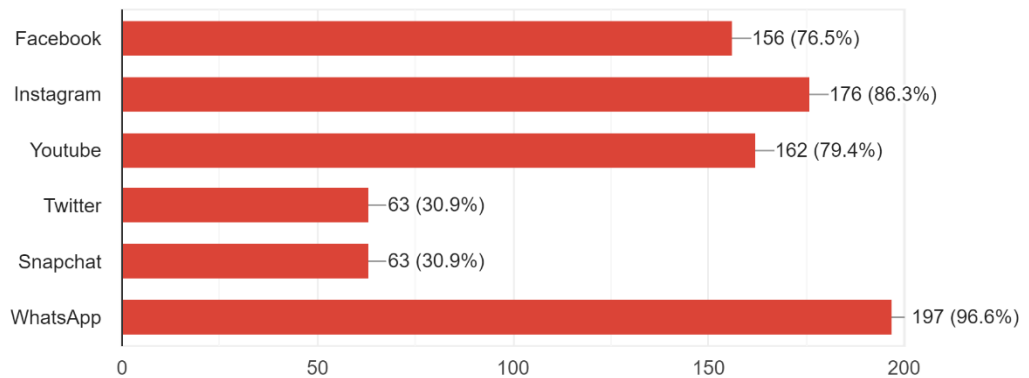
The researchers also conducted the Reliability and Validity Test. Inter-item validity was significant at 0.01 level, i.e. at a 99% confidence interval. The reliability of a test referred to how accurately and sufficiently a test measures what it should. Internal consistency coefficient, according to the Cronbach's alpha coefficient was 0.896, as shown in the table below.

Table 2

The Reliability Statistics through the Cronbach's Alpha and the Number of Items in the Questionnaire

Cronbach's Alpha	Number of Items
0.896	20

Source: Primary Source

To comprehend the participants' attitudes towards Social Media and their addiction to using it during the lockdown, the researchers conducted one-sample t-test.

Table 3

One-Sample t-test with Test Value 3 and the significance of each item with the responses of the participants

Item of the Questionnaire	Test Value = 3			
	t	df	Sig. (2-tailed)	Mean Difference
SMA1	5.471	202	.000**	.4089
SMA2	-1.444	202	.150	-.1281
SMA3	.995	202	.321	.0985
SMA4	-4.146	202	.000**	-.3941
SMA5	-10.543	202	.000**	-.8621
SMA6	-6.064	202	.000**	-.4778
SMA7	-19.459	202	.000**	-1.3448
SMA8	-8.645	202	.000**	-.7044
SMA9	-4.805	202	.000**	-.4187
SMA10	-3.906	202	.000**	-.3005
SMA11	7.731	202	.000**	.6355
SMA12	-2.653	202	.009*	-.2069
SMA13	-10.639	202	.000**	-.7980
SMA14	-14.547	202	.000**	-.9901
SMA15	-2.608	202	.010**	-.1970
SMA16	.385	202	.701	.0345
SMA17	11.528	202	.000**	.8424
SMA18	2.303	202	.022**	.1872
SMA19	-7.181	202	.000**	-.5862
SMA20	-5.389	202	.000**	-.4581

** 99% Confidence Interval (p < 0.01)
* 95% Confidence Interval (p < 0.05)
Source: Primary Source

The table above portrayed every one of the twenty items in the questionnaire and compared with the level of significance level at a 99% confidence interval and 95% confidence intervals of the participants' responses. The table also represents the test value, i.e. 3, and the standard deviation to the participant's responses. As portrayed, the items "I look for internet connectivity everywhere so as to go on social media"; "Going on social media is the first thing I do when I wake up in the morning"; and "I notice that my productivity has diminished due to my social media use" are not significant to the test value of the participants' responses as the p values are 0.150, 0.321 and 0.701 respectively. This value indicates that the other questionnaire items are significant to the participants' responses during the COVID-19 pandemic and lockdown.

As it is evident, the standard error of mean is inversely proportional to the t-value and therefore, the smaller the p-value. Similarly, in Table 4.0.2., the following items have proven to be significantly valid with most of the participants' responses concerning their t scores:

i. The participants prefer friendships and interpersonal relationships in real life, as opposed to online or virtual relationships on social media, i.e. $t(202)= -19.459$, p=0.000

ii. The participants do not feel unhappy when they are absent from social media over some time, i.e. $t(202)= -14.547$, p=0.000

iii. The participants remain uncompelled to depreciate or lessen the time they spend online, especially concerning social media platforms, i.e. $t(202)= -10.639$, p=0.000

iv. A life beyond using social media remains meaningful for the participants, i.e. $t(202)= -10.543$, p=0.000

v. They do not express themselves better with the people they contact through social media, i.e. $t(202)= -8.645$, p=0.000

vi. They do not pass over their work sometimes to spend additional time on social media platforms, i.e. $t(202)= -7.181$, p=0.000

vii. They refuse or withhold using social media when there are around people, i.e. $t(202)= -6.064$, p=0.000

viii. They are not always active on social media to be well informed about what their kin and kith share, i.e. $t(202)= -5.389$, p=0.000

ix. They do not necessarily want to be seen and heard on Social Media, i.e. $t(202)= -4.805$, p=0.000

x. They do not necessarily perceive social media as an escape from their world, i.e. $t(202)= -4.146$, p=0.000

xi. Some of them usually prefer communicating with people through social media, i.e. $t(202)= -3.906$, p=0.000

xii. Social media activities do not necessarily lay hold on their everyday lives, i.e. $t(202)= -2.653$, p=0.009

xiii. Being on social media does not necessarily excite most of the participants, i.e. $t(202)= -2.608$, p=0.010

xiv. The majority of the participants' tend to browse or scroll on social media platforms as they want to be enlightened and versed about the content that their online groups share, i.e. $t(202)= 2.303$, p=0.022

xv. Most participants are also ardent to visit social media websites and platforms daily, i.e. $t(202)= 5.471$, p=0.000

xvi. Most participants spend more time browsing or surfing on social media platforms when they are unattended or isolated than around people, i.e. $t(202)= 7.731$, p=0.000

xvii.   A majority of the participants use social media to keep informed about generally what happens around them, i.e. t(202)= 11.528, p=0.000

The researchers decided to conduct a t-test for each item in the said questionnaire to comprehend and understand the effect or influence that each item has on the participants' responses and attitudes towards their social media usage.

Discussion

This study conducted on mixed-gendered adults was between 18 and 30 years, including some of the participants being single, married, or engaged. Their educational qualifications range from PUC/ +2 to PhD. Inter-item validity was significant at 0.01 level, i.e. at a 99% confidence interval. The reliability of a test refers to whether a test legitimately measures what it should measure. The internal consistency coefficient, according to Cronbach's alpha coefficient, was 0.896. It can infer from the above results that the majority of the participants are eager to use social media, browse on social media platforms to be informed about the content shared by their social media groups. They also tend to remain exposed to the internet for a more extended period, especially on social media platforms when they are aloof, rather than around people.

Implications and Suggestions

i.   The shortened version or the short form of the Social Media Addiction Scale (SMAS) in this study suggested using for different populations irrespective of age group and cultural backgrounds.

ii.   There is further research suggested in social media addiction domain or field among young adults and adults.

Limitations of the Study

i.   Due to the time constraint of the data collection, the sample was limited to 204 mixed gendered adults, between the ages of 18 and 30. However, if the study permitted extra time, several more participants could be added to enhance the questionnaire's reliability and validity in the survey.

ii.   The mixed gendered adults inconsistently disseminated among the participants. Due to this, there was bias concerning women participants being more than men. If there was uniformity in the gender ratio, gender could have been one of the moderating variables used in the study.

iii.   The educational qualifications have taken part in the participants' demographic details, irregularly defined into several groups (6 groups) ranging from PUC/ +2 to PhD. However, if the participants were uniformly segregated based on their

educational qualifications, the accuracy of educational qualifications being a moderating variable in the study would have been appropriate.

iv.   Most participants also suggested the researchers could have increased the age limit from 30years to 40 years to make the study more inclusive of more members and have a broader perspective on both, adults and young adults concerning social media use.

Conclusion

The study aimed to understand the prevalence and the paramount significance of the abuse of social media. It also involved its' addiction during the present COVID-19. It also aimed at understanding how accustomed or habituated people were, in terms of social media use. It can be concluded that the majority of the participants were eager to use social media and be informed about the content shared by their respective groups. Most participants also tend to spend more time on social media when they are alone. The paper also suggested that the Social Media Addiction Scale's shortened version is applicable for different populations irrespective of their age and cultural backgrounds. However, further research indicated in social media's domain and field in terms of addiction among more young adults is recommended.

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A Comparison of Emotion Regulation Strategies' Effectiveness under Cognitive Fatigue

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ABSTRACT

Previous studies have shown differences in effectiveness among emotion regulation strategies under cognitive fatigue. However, a few studies attempted to compare multiple strategies together. The objective of this research is to compare the effectiveness of cognitive reappraisal, distraction, and affect labeling under cognitive fatigue using self-report negative emotions and skin conductance. In the 2 (fatigue vs. non-fatigue) × 3 (emotion regulation strategies) within-subject design, 46 participants were randomly assigned into conditions using an incomplete block design method. Participants were instructed to use emotion regulation strategies while watching emotion-eliciting pictures. Self-report emotion and skin conductance responses were measured to compare the effectiveness of the strategies. Results have shown that reappraisal was more effective in regulating negative emotions than did distraction and affect labeling in both fatigue and non-fatigue conditions. While reappraisal was a robust method of regulating emotion, the other two less-demanding strategies show some promising results. The present study provided a consistent conclusion with previous works which showed that reappraisal worked better than distraction and affect labeling. However, no difference in emotional responses was found when comparing the cognitive fatigue condition.

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INTRODUCTION

An ability to cope with unpleasant emotions is essential for a healthy life (Gross & Thompson, 2007). Failure to regulate emotions is implicated in a number of psychological disorders, such as depression and anxiety (Gross & John, 2003). At the same time, emotion regulation is implemented to help people with disorders such as borderline personality disorder and other related personality disorders. Emotion regulation primarily refers to the process of cognitively controlling our emotions, the attention we give to emotions, and the way we interpret and experience emotions (Gross, 1998). Various emotion regulation strategies have been explored and identified in the last few decades, and they were found to differ in their effectiveness in regulating emotions (Gross & John, 2003; Gross & Thompson, 2007). One possible explanation for differential effectiveness and success among emotion regulation strategies is that a) some strategies may require distinct amount of cognitive resource from others and b) individuals differ in their capacity to cognitively employ each emotion regulation process. Research has shown that decreased cognitive resources weakened emotion regulation's effectiveness and that emotion regulation undermined performance on cognitive tasks (e.g., working memory span; Schmeichel, 2007). These findings support the view that cognitive tasks and emotion regulation rely on the same limited and depletable resources (Grillon et al., 2015). These findings demonstrated the impact of cognitive resources on emotion regulation and vice versa.

Among the three mainly studied emotion regulation strategies, *cognitive reappraisal* probably received the most attention among researchers. The strategy, which was first studied by Gross (1998), refers to a way in which individuals change how they think about a situation before emotions take place. Research has shown that reappraisal was a promising strategy when dealing with negative emotions (Gross, 1998; Ray et al., 2005).

Similar to reappraisal, a substantial body of research suggests that *attentional distraction* may be an effective way to manage negative emotions (Thiruchselvam et al., 2011; Tracey et al., 2002). Attentional distraction involves shifting focuses in order to deploy attention away from emotional stimuli. Distraction has been found to decrease negative emotions (Webb et al., 2012), particularly when associated with problem-focused coping. Even though distraction has been shown to alleviate negative emotions (Tracey et al., 2002), evidence suggested that reappraisal was more effective than distraction in some situation such as when individuals down-regulated the emotional experience (McRae et al., 2010).

Another newly introduced emotion regulation strategies is *affect labeling*, which involves solely verbally labeling an emotional content of an external stimulus (i.e., fearful or

angry face; Lieberman et al., 2007). At first glance, putting feeling into words may not seem to be an effective way to cope with emotions. However, investigations have shown the effectiveness of this strategy across various contexts (Burklund et al., 2014; Lieberman et al., 2007). In addition, neuroimaging studies also found that reappraisal, distraction, and affect labeling resulted in the same manner, that is, they all reduced amygdala activation (Giorgetta et al., 2012; Grecucci et al., 2013; Hariri et al., 2000; Moyal et al., 2014). These studies suggest that the three emotion regulation strategies are effective in decreasing negative emotions.

In this paper, we aimed to uncover the effect of cognitive fatigue on a wider range of emotion regulation strategies, namely, cognitive reappraisal, attentional distraction, and affect labeling. Based on the Process Model of Emotion Regulation (Gross, 1998), we hypothesized that different emotion regulation strategies would be different in their effectiveness of decreasing negative emotion. Moreover, the three strategies would be differently influenced by cognitive fatigue due to the distinct cognitive demands of each strategy. We also used both the self-report negative emotions and skin conductance responses to emotion stimuli to assess negative emotions.

Materials and Methods

Study Design

An incomplete randomized block design for a 3 (strategies) by 2 (fatigue) within-subject conditions was employed in order to reduce the length of the experimental session and kept the participants engaged. In this design, one participant was randomly assigned into 4 of 6 conditions, resulting 30 observations from 45 participants for the entire design.

Participants

Forty-nine individuals (M_{age} = 22.4; 41 female) were recruited through classes and social networks and received a compensation of 200 Baht (≈$6) for their participation. Data from 3 individuals were excluded from the analysis due to non-responses of skin conductance that occurred during the experiment. Thus, final result was 46 participants.

Materials

Cognitive Fatigue Tasks. The task consisted of a series of mental calculations including additions, subtractions, multiplications, and division which consists of 1–3 digit numbers and three levels of calculation, for instance, (345 - 127) * 6. In the non-fatigue condition, the calculation consisted of 1 – 2 digits number and two levels of calculation (e.g., 12 + 7). These tasks lasted for 10 minutes.

Emotion Regulation Tasks. These tasks required individuals to regulate their emotions that were elicited from the IAPS pictures. The instructions were derived from a meta-analysis of Webb et al. (2012) for reappraisal (e.g., "change your emotions by reinterpret what you see in the pictures") and distraction (e.g., think about something positive that is unrelated to the pictures in order to distract yourself") and from Lieberman et al. (2011) for affect labeling (e.g., "try to name the emotion you are experiencing"). Before each emotion regulation task, participants were trained for each regulation strategy by watching instructional video clips at the beginning of each emotion regulation condition. After the training session, participants were presented with three emotion regulation tasks in a random order. Each emotion regulation condition consisted of five IAPS pictures and lasted 30 seconds per picture. At the end of each picture, participants completed a self-report negative emotions rating.

Emotion Stimuli. Seventy pictures from the International Affective Picture System (IAPS; Lang et al., 2008) were rated by 33 individuals in a pilot study using the Self-Assessment Manikin (Bradley & Lang, 1994), a non-verbal assessment technique in pictorial form that directly measures the valence, arousal, and dominance associated with a person's emotional response to stimuli. The SAM comprises single-item scales that measure valence of the response (7 = *positive* to 1 = *negative*), perceived arousal (7 = *high* to 1 = *low* levels), and perceptions of dominance/control (1 = *low* to 7 = *high*). In this study, neutral pictures were categorized by valence rating between 3.5 to 5 and the arousal rating between 1 to 3; negative pictures had valence between 1 to 3.5 and arousal between 4.3 to 7. Thirty negative pictures[1] were selected as experimental stimuli. These pictures consisted of mixed negative emotions including fear, disgust, and sadness. Five negative and five neutral pictures were selected as baseline-controls.

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[1] **Number of IAPs pictures:** 3001, 1271, 1525, 1301, 1202, 9187, 1270, 1050, 6231, 8370, 9163, 1114, 2345.1, 1051, 1022, 1932, 9940, 1040, 1052, 1026, 3005.1, 1033, 1280, 1310, 8192, 1274, 1726, 8186, 8192, 1811, 1111, 1300, 1930, 1019, 1201, 7000, 7004, 7009, 7025, 7090

Measures

Physiological Activity. Skin Conductance Response (SCR) was utilized as the physiological measure of negative emotional arousal. In this study, the SCR was recorded with ProComp infiniti: Electrodermal Activity device (EDA; Thought Technology Inc.). Skin conductance signals were transmitted via two electrodes attached to the ring and middle fingers of the non-dominant hand. Participants were informed that the experiment involved measuring skin conductance 24 hours before the experiment, and they were asked to follow skin conductance checklists (i.e., no alcohol for 24 hours and no coffee for 3 hours before the study).

Self-report Negative Emotions. A rating scale question read "how intense was your feeling?", was used to assess the participant's negative emotional experience, 1 = did not feel any negative emotion at all to 7 = strongly felt negative emotions. The item was presented following each IAPS picture.

Self-reported Difficulty of Tasks. The difficulty of tasks was assessed by a rating scale question "how difficult was the task?" ranging from 1 = the task was not difficult at all to 7 = the task was strongly difficult, following cognitive fatigue task.

Procedures

After giving informed consent and being screened for exclusion criteria, SCR electrode were placed on the distal phalanges of the first and middle finger of a participant's non-dominant hand. Next, participants completed two baseline-control emotion regulation tasks: one with 5 neutral pictures and one with 5 negative pictures, respectively. An incomplete block design was, then, used to deliver a 2 (fatigue condition) × 3 (emotion regulation strategies) within-within-subject conditions as described above. Each participant would complete 4 out of 6 conditions. The assigned conditions were arranged into the fatigue condition set or the non-fatigue condition set. Participants either completed all strategies in the fatigue condition set first then the non-fatigue condition set, or vice versa. Between the two set, participants were given a 10-minute rest. In the fatigue condition set, participants began with the cognitively demanding mental calculation for 10 minutes, then, rated the difficulty of the task. After that, they completed each of the assigned emotion regulation strategy condition in succession. Within each strategy condition, they were presented with an instructional video pertaining to the assigned strategy. Participants were told that they should not close their eyes or look away from the pictures. Subsequently, in each regulation strategy condition, the participants regulated their emotional responses to five randomly-presented

IAPS pictures using the strategy described on the screen. The emotion intensity rating was collected at the end of each picture. The non-fatigue condition set followed the same patterns, albeit employing the less cognitively demanding calculation task. The experimental stimuli were delivered via E-Prime 3.0 (Psychology Software Tools). At the end of the experiment, participants were asked manipulation check questions and were received their compensation and thanked for the participation.

Ethical considerations

This study was approved by Chulalongkorn University Institutional Review Board No. 169.1/62.

Data Analysis

All statistical analyses were performed using the open-source language R 3.6 (R development Core Team, 2019). Linear mixed-effect modeling performed by lme4 package(Bates et al., 2014), was used in order to test the effect of each emotion regulation strategies. Linear mixed-effect models contains fixed effect (explanatory variables) and random effects (variance components).

Skin conductance response data preprocessing

The skin conductance data were imported and analyzed with Ledalab.GUI (Benedek & Kaernbach, 2010), a toolbox for skin conductance data analysis in MATLAB (MATLAB, 2018). The data were, then, down-sampled from 256Hz to 32Hz. A continuous decomposition analysis (CDA) was used to extract the SCR Phasic information of each emotion regulation task. In this study, sum of amplitudes of significant skin conductance response within each emotion regulation task was used as a dependent variable with minimum amplitude threshold of 0.01 uS. Then, Tukey's Ladder of Powers transformation was applied to transform sum of amplitudes data to approach a normal distribution.

Results

Comparisons of Emotion Regulation Strategies against Control Group

Linear mixed-effect models were designed to predict each of the outcome variables: self-report negative emotions and sum of SCR phasic amplitude. The first models' results from a random intercept showed that the self-report negative emotions in all six experimental conditions were significantly lower than the negative baseline-control. ($M_{\text{exp}} = 2.19 - 3.34$ vs. $M_{\text{neg-base}} = 4.14$). While the sum of amplitudes, only reappraisal in non-fatigue condition ($M =$

1.50, *SD* = 0.33) showed the result lower than the negative baseline control (*M* = 1.53, *SD* = 0.32). See **Table 1** for mean of each condition and **Table 2** for the model's coefficients.
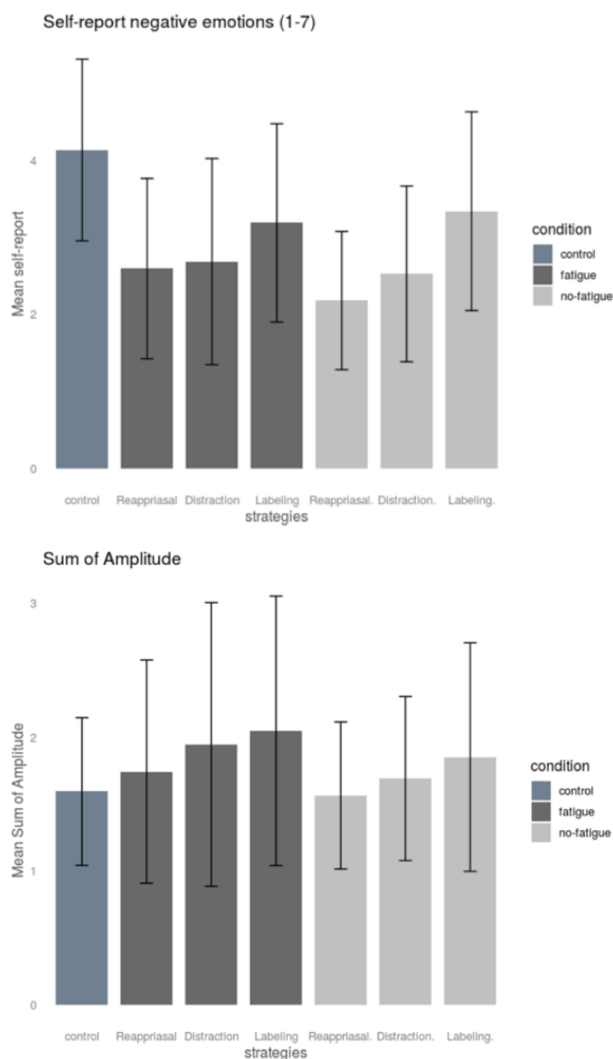
Figure 1: a) Shows Self-Report Negative Emotions for Each Emotion Regulation Strategy, **b)** Shows Standardized Sum of Amplitudes for Each Emotion Regulation Strategy Measured by Skin Conductance Device

Comparisons of Emotion Regulation Strategies and Fatigue Conditions

    Self-reported Negative Emotions. The overall of this model explained 58.8% of the negative emotions variance, while the fixed factors explained 11.6% of the variance. The results revealed that the difference between the fatigue and non-fatigue conditions was not significant
(*b* = - 0.36, *p* = .106). For the main effect, affect labeling is significantly higher than

reappraisal ($b = 0.70$, $p < 0.001$) while distraction is not significantly different from reappraisal ($b = 0.22$,

$p = 0.304$). Furthermore, the interaction between regulation strategies and cognitive fatigue was not significant. The result of likelihood ratio of the simple main effect model and the interaction effect showed no significantly different ($\chi^2 (2) = 3.70$, $p = 0.16$).

Sum of Amplitudes. The overall model predicting sum of amplitudes explained 5.65% of the variance, and explained 5.65% by fixed factors. Consistent with the self-report emotions, the effect of cognitive fatigue was not significant for the sum of amplitudes ($b = -0.01$, $p = 0.915$). Similarly, affect labeling showed significant different to reappraisal ($b = 0.09$, $p < 0.05$) while distraction showed no significant difference ($b = 0.03$, $p = 0.395$). There was no significant interaction between the fixed factors. The result of likelihood ratio of the simple main effect model and the interaction effect model showed no significantly different ($\chi^2 (2) = 0.50$, $p = 0.78$). See the full results in Table 3.

Table 1. Means and Standard Deviations for the Two Dependent Measures for all Conditions.

Condition	Strategies	Self-Report ($n = 46$)	Sum of Amplitude ($n = 45$)
Control	Control	4.14 ± 0.18	1.53 ± 0.32
Fatigue	Reappraisal	2.60 ± 1.17	1.54 ± 0.38
Fatigue	Distraction	2.69 ±1.34	1.72 ± 0.56
Fatigue	Labeling	3.19 ± 1.29	1.92 ± 0.70
Non-fatigue	Reappraisal	2.19 ± 0.90	1.50 ± 0.33
Non-fatigue	Distraction	2.53 ± 1.14	1.64 ± 0.46
Non-fatigue	Labeling	3.34 ± 1.29	1.77 ± 0.60

Note. The control condition was the negative-baseline condition

Table 2. Random Intercept Model for Seven Conditions Nested in Participants

Predictor		Self-report			Sum of Amplitude		
condition	strategy	*estimates*	*SE*	*p*	*estimates*	*SE*	*p*
(Intercept)		4.14	0.17	< 0.001	-0.70	0.02	< 0.001
Fatigue	Reappraisal	-1.61	0.21	< 0.001	-0.01	0.04	0.914
Fatigue	Distraction	-1.45	0.20	< 0.001	0.04	0.04	0.235
Fatigue	Labeling	-0.88	0.20	< 0.001	0.13	0.04	0.006
Non-fatigue	Reappraisal	-2.00	0.21	< 0.001	-0.001	0.04	0.727
Non-fatigue	Distraction	-1.60	0.21	< 0.001	0.05	0.04	0.388
Non-fatigue	Labeling	-0.72	0.21	0.001	0.06	0.04	0.086
Random Effects		$\sigma^2 = 0.76$			$\sigma^2 = 0.02$		
		τ_{00} id = 0.63			τ_{00} id = 0.00		
		Conditional $R^2 = 0.588$			Conditional $R^2 = 0.055$		
		Marginal $R^2 = 0.247$			Marginal $R^2 = 0.055$		

Note. The baseline-control was coded as a reference condition

Table 3. Random Intercept Model for Fatigue Conditions and Strategies Nested in Participants

Predictor	Self-report			Sum of Amplitude		
	estimates	*SE*	*p*-value	*estimates*	*SE*	*p*-value
(Intercept)	2.50	0.20	< 0.001	-0.72	0.03	< 0.001
Non-fatigue	-0.36	0.31	0.106	-0.01	0.04	0.914
Distraction	0.22	0.21	0.304	0.03	0.04	0.401
Labeling	0.70	0.22	0.001	0.09	0.04	0.009
Distraction * Non-fatigue	0.29	0.31	0.523	0.01	0.56	0.845
Labeling * Non-fatigue	0.59	0.31	0.059	-0.03	0.06	0.637
Random Effects	$\sigma^2 = 0.65$			$\sigma^2 = 0.02$		
	$\tau_{00\ id} = 0.75$			$\tau_{00\ id} = 0.00$		
	Conditional $R^2 = 0.588$			Conditional $R^2 = 0.057$		
	Marginal $R^2 = 0.116$			Marginal $R^2 = 0.057$		

Note. Fatigue condition and reappraisal were coded as reference conditions

Discussion

In contrast to Grillon et al. (2015), we did not find the effectiveness of emotion regulation strategies depended on cognitive fatigue. Actually, we did not even find the main effect of cognitive fatigue. While the simplest explanation would be that the fatigue manipulation failed to generate the desired effect, participants still indicated that they perceived the fatigue condition to be more difficult than the non-fatigue condition. It is possible that although the mental calculation, a common paradigm to induce cognitive fatigue, might be cognitive demanding for the participants, they were not depleted of their cognitive resource to the point that would hinder their regulation performance. When completing the unfamiliar emotion regulation tasks, the participant might still be able to tap into their cognitive reserves to compensate for fatigue from the mental calculation. The other possibility could be that participants were cognitively fatigued in both condition and the 10-minute break were not enough for a recovery. In the latter explanation, it could mean that the effectiveness of each strategy was less dependent on the available cognitive resources as we originally thought; and that the reappraisal strategy was robust even in the face of cognitive constraints.

The current study also investigated the effectiveness of three emotion regulation strategies: cognitive reappraisal, attentional distraction, and affect labeling. We found that, regardless of the cognitive fatigue conditions, all three strategies were more effective in reducing self- negative emotion than the baseline-control, where the participants were not explicitly told to use any regulation strategy. These findings were in line with previous studies which compared the effectiveness of reappraisal and distraction (Bettis et al., 2018; McRae et al., 2008; Strauss et al., 2016), as well as, reappraisal and affect labeling (Lieberman et al., 2011) against a control condition. Moreover, among the three strategies, cognitive reappraisal was shown to be consistently more effective than distraction and affect labeling in the self-report measure. However, in the skin conductance measure, reappraisal and distraction did not significantly differ and, at the same time, both were more effective than affect labeling. It is possible that while both reappraisal and distraction strategies were similarly successful at diminishing negative emotions at the physiological level, the participants might not be fully aware of such effect. By contrast, affect labeling seemed to be the least effective among the three strategies, especially in the self-report emotion. Lieberman et al. (2011) suggest that individuals may not believe that labeling their emotions is useful for decreasing negative feelings. Such bias could play a role in self-report measures. Nonetheless, the physiological measure showed a similar trend to the self-report measure,

suggesting that affect labelling was not on a par with cognitive reappraisal in terms of reducing negative emotions.

Furthermore, the sum of SCR phasic amplitudes was found to be unexpectedly low in the baseline-control tasks. Several possibilities exist. Stronger physiological responses in emotion regulation conditions than those in the baseline-control could be explained with the carry-over effect as the baseline-control always appeared at the beginning of the experiment. Schwartz and Andrasik (2017) suggested that temporal factor might cause participants to become physically fatigue. Such effect could interfere with physiological measurement over time. Sze et al. (2010) also found that high level of bodily emotional awareness is associated with subjective emotional experience. Therefore, when participants were requested to perform such strategies, their emotional awareness might arise. As such, their physical reactions also emerge simultaneously. However, this explanation could not account for the fact that self-report emotion in the baseline-control was higher than the experimental conditions. The implicit-explicit distinction seems more probable in this case. Commonly, explicit emotion regulation involves an explicit goals and controlled change process, while implicit emotion regulation involves more autonomic change processes with implicit goals (for a review, see Braunstein et al., 2017). These two dual-processes paradigms could explain a degree to which participants' self-reports were higher than the sum of SCR amplitudes in the control-baseline. Typically, individuals had their own way to regulate emotion if they were not instructed to do any specific regulations. Research has suggested that even without explicit instruction, people reported that they used emotion regulation fairly regularly on a daily basis (Gyurak et al., 2011). This so called "habitual emotion regulation" can be initiated quickly and effortlessly as an implicit response to emotional stimuli. Nonetheless, this implicit process might occur automatically outside participants' awareness. As a result, they might not show a decrease in self-report emotion, though they physiological responses had already been regulated.

The limitation of this present study was that, the majority of samples of this study were university students who differ in some ways from the population in the same age range (18 - 30 years old). The difference in an ability to access one's own thought and background knowledge could impact how one would redirect thoughts and construct a reasonable ones to deal with negative emotions. Future studies could include a wider range of participants.

CONCLUSIONS

Emotion regulation is a fundamental ability to adapt individual's behavior to different situations. Different emotion regulation strategies have been explored in many domains such as clinical, psychology mental health, neuroscience, etc. The present study provided a consistent conclusion with previous works which showed that reappraisal worked better than distraction and affect labeling. On the other hand, we could not demonstrate any difference in emotional responses when comparing the cognitive fatigue conditions, suggesting that the three strategies may very sensitive to the decrease cognitive resources.

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Humanistic Psychology Contra Neoliberal Ideology:
Cultivating Individuation, Solidarity, and Emancipation at Work

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ABSTRACT

This essay deliberates and discusses antagonistic ideological undercurrents in psychology, representing neoliberal economic versus humanistic philosophical schools of thought. Specifically, work and organizational psychology recently has problematized the socially, morally, and intellectually corrosive effects of pervasive neoliberal injunctions. Infusing political, social, and "fantasmatic" or unconscious logics, narratives, and imageries, neoliberal ideology systematically biases workplace practices and their representation in research towards individualism, competition, and instrumentality, which feeds systemic biases, inconsistencies, blind spots, counterfactual theorizing, and confusion regarding intended and obtained outcomes. Extending the suggested three-dimensional model, this essay contrasts principles of neoliberal ideology with humanistic ideals of individuation, solidarity, and emancipation. These concepts are examined on multiple levels: 1) as abstract political logics pervading societal ideologies and institutions; 2) as applied social logics shaping workplace practices; 3) as implied fantasmatic logics subconsciously influencing psychological processes. The resulting matrix comprises antithetical logics on different levels with specified foci, domains, and subtexts. Relationships are discussed with concepts of alienation, basic psychological needs, and meaninglessness/-fulness as existential meta-dimensions. Implications concern scholars positioning their professional identities along ideological rifts and antagonisms. Exploring uses of the model for personal development and engaged critical scholarship takes aim at new ways of counteracting neoliberal ideology by cultivating humanistic ideals of individuation, solidarity, and emancipation.

1   INTRODUCTION: NEOLIBERAL IDEOLOGY VS. HUMANISTIC IDEALS

Humanistic psychology and spirituality are globally under assault by amoral economistic thinking and instrumental rationality. Among others, these economic belief systems are propagating, justifying, and "naturalizing" some of the most anti-social, appalling, and destructive, if not pathological, aspects of human psychology, for instance, strategies aimed at maximizing utility and self-interest, marketing alignment, and "rational" choices in "investing" in one's "human capital", including "employability", as well as personal relationships and other life choices [1, 2, 3]. The totality of advanced capitalist institutions and their workings is thus installing a particular version of social reality, aimed at "producing the appropriate individual" to best serve their own interests of profit and power, but devoid of social, moral, ethical, and spiritual aspirations, norms and values: The market is god–greed is its commandment.

Both overtly and disguised, official doctrine and hidden agenda, the neoliberal transformation is colonizing–pervading and remodeling–societies, social institutions, and the psychological structure and life conduct of individuals–perpetually implementing, reinforcing and extending economistic imperatives of monetarization, marketization, and rationalization [4, 5, 6]. Research in multiple disciplines in the social and natural sciences has called attention to these detrimental developments, manifesting in globally rising inequality and stratification, including precarious employment and new forms of exploitation, as well as environmental destruction and climate change, taken together, causing intolerable human suffering and strife both within post-industrial western nations and in their industrialized and pre-industrial periphery, so-called developing or emerging (often more accurately called "struggling") economies. Whereas other fields, such as sociology and ecology, have been more actively engaged in calling attention, criticizing, and counteracting the social and environmental humanitarian crisis accelerated by the global neoliberal transformation, large parts of academic psychology have stayed silent on these issues. In work and organizational psychology, notably, a recent debate has problematized socially, morally, and intellectually corrosive effects of pervasive neoliberal injunctions [7, 8, 9]. Among other, undisclosed and unquestioned (tacit, implied) subservience to the particular interests of ruling elites (owner/investors, managers) would feed systemic biases and inconsistencies, double-binds, blind spots, counterfactual theorizing, and confusion regarding intended and obtained outcomes. Infusing political, social, and "fantasmatic" (unconscious, psychodynamic) logics (cognitive frameworks, thinking patterns), neoliberal ideology has been argued to systematically bias workplace practices and their representation in research towards unquestioned purposes of individualism, competition, and instrumentality [10, 11, 12].   Following up on these issues and debates, this essay seeks to contribute to deeper systemic reflection, discussion, and understanding regarding antagonistic ideological undercurrents associated with neoliberal economic versus humanistic philosophical schools of thought. Extending the three-dimensional model [9], this essay deliberates and contrasts principles of neoliberal ideology with counteracting humanistic ideals of individuation, solidarity, and emancipation. Corresponding with the initial conceptualization and its uptake of research and theorizing on institutional logics [13, 14, 15], these constructs are examined on multiple levels: 1) as abstract political logics pervading societal ideologies and institutions; 2) as applied social logics shaping workplace practices; 3) as implied fantasmatic logics influencing psychological processes of individuals.

The resulting matrix of facets of neoliberal ideology and antagonistic humanistic ideals, which is displayed in Table 1, forms the core of and guides the following considerations. As

an additional structuring element, the three antagonistic pairs of multi-level ideologies can be framed in terms of primary (most direct or explicit) references to the own self (identity / person), to others (interactions / people), and society, specifically, the role of authorities (institutions / power). This pertains to political logics (societal level) as well as to social (organizational) and psychological (individual), where these different emphases (own person, other people, power structures) are intentionally continued. This is done to provide criteria for identifying, compiling, and structuring corresponding and antagonistic (matching counter-directed or dialectic) concepts in developing the extended ideological matrix model presented here. Due to limited scope of this contribution, but also with regard to the current state of own theorizing and development, the constructs or descriptors "populating" the matrix cannot be discussed in any level of detail that would do justice to their theoretical basis, constitutive literature, and practical importance. Some are only mentioned in passing; others have been discussed elsewhere. For most, their fragmentary elaboration and integration reflects the current state of conceptual development, this essay seeks to document and, thereby, to transcend. Importantly, the emphasis here will be on the individual rather than the societal or organizational level, focusing on self-reflection, personal experience, and implications for humanistic psychology and spirituality, as the context of presenting these ideas.

Table 1 Ideological Matrix Model: Facets of Neoliberal Ideology and Humanistic Ideals

Level / Logic		Neoliberal Ideology			Humanistic Ideals	
Primary Reference	Self Identity Person	Others Interactions People	Society Institutions Power	Self Identity Person	Others Interactions People	Society Institutions Power
Societal Level / Political Logic	Individualism	Competition	Instrumentality	Individuation	Solidarity	Emancipation
Organizational Level / Social Logic	Employee Self-Reliance	Tournament Situations	Economic Rationalization	Self-Actualization	Common Good	Social Transformation
Individual Level / Fantasmatic Logic	Excellence Exceptionality (Self-Estrangement)	Superiority Dominance (Normlessness, Isolation)	Adaptivity Submission Assimilation Powerlessness)	Growth (Competence)	Equality Relatedness)	Freedom (Autonomy)
Latent Psychological Experience		Alienation (Meaning-lessness)			Fulfillment Meaning-fulness)	

Note: Suggested matrix of dimensions and levels / logics of neoliberal ideology and antagonistic humanistic ideals; descriptors in lower rows are exemplary; concepts in parentheses draw on theories regarding dimensions of psychosocial alienation and psychological need fulfillment; meaning is included as a bipolar meta-dimension.

2   SOCIETY: NEOLIBERAL VS. HUMANISTIC POLITICAL LOGICS

In the model of neoliberal ideology referred to above [9], individualism, competition, and instrumentality are included as political logics of neoliberal ideology on the societal level, influencing the social logic of institutions and the fantasmatic logic of individuals on hierarchically nested "lower" levels. Note that, for the purpose of this presentation, the order of dimensions was adapted. The broader logic of neoliberalism is described elsewhere on detail, but can be summarized as hegemony of economic interests, a "totalization" of money and markets, including powerful transnational corporations, a sprawling industrial-military complex, global consumer "culture and industry", creating an immoral amount of wealth and luxury for a very small minority, but bringing various degrees of increased personal risks, austerity or poverty ("artificially" created and maintained) to the majority of others. Within this broader context of socio-economic and cultural change, individualism refers to logic of complete self-reliance, where the individuals are held fully responsible and accountable for their own success and life situation, including wealth, health and happiness, social status, education, and occupation – without consideration of societal influences and conditions (e.g., discrimination, structural unemployment, economic crisis etc.). This includes undermining or eroding the collective pursuit of shared social interests (e.g., unions, welfare), and degrading meaningful interpersonal relationships, social support, and responsibility for others on an individual level [15, 16]. Individualism is complemented by an excessive emphasis on competition, enshrined as the best way to ensure progress and allocation of resources on all levels of society and in all domains of life, via the revered "quasi-divine" institutions of markets determining the value of all goods and services – commodities, the most universal of which are "human resources". The dimension of instrumentality refers to the "objectification" of people as tools or "resources", exploited by applying cost-benefit, means-end, or input-output calculations to their time, activities and even existence for the commandment of maximizing profit and capital accumulation. These tendencies manifest most clearly in the sphere of work (as societal production vs. reproduction), for instance, as employee self-reliance instead of job security and benefits, competing for jobs and pay on internal and external labor markets, and subjection to a multitude of interventions, from supervision and performance assessment, motivation and training, to restructuring and change management, aimed towards achieving economic objectives (e.g., profit, shareholder value, market position) not primarily benefitting those who are mobilized, i.e., "instrumentalized" for purposes not in their own best interest [16, 17, 18]. Increasing proliferation of an ideology of "unitarism", notwithstanding, employment is characterized by inherent conflicts of interest, from the societal (e.g., labor protection), organizational (e.g., participation), to individual (e.g., personal time) level. Conflicts inherent in ideologies of individualism, competition, and instrumentality resonate with fantasies and discourses of excellence and exceptionality (i.e., perpetual and outstanding success, performance and achievement), as well as superiority and dominance (e.g., outperforming others, being better, winner-loser mentality), coupled with adaptation, submission, and assimilation into the ruling institutions and commandments of capitalism, e.g., fulfilling social roles, seeking acceptance and status, tolerating inequality and injustice etc. On the individual level, these alienating fantasmatic logics are contrasted with humanistic fantasies (ideas, values, narratives, utopian aspirations) of growth, equality, and freedom, based on fulfillment of psychological needs for competence, relatedness, and autonomy. In the matrix model, these representations are part of the psychological substructure and foundation of higher-level political and social logics, applied to the design of social systems [13, 14, 15].

Suggested as antagonistic counter-principles based on humanistic psychology, to exemplify opposing philosophical concepts and principles to neoliberal dogmas and utilization strategies, were normative ideas of individuation, solidarity, and emancipation, cautioning that these require further elaboration and deliberation [10, 11]. Some attempts in this direction are made in the following.

2.1 Individuation

The focus of individuation is the individual person or their identity [19, 20, 21]. As an antipode to neoliberal "rugged individualism", the conceptually and semantically related term of "individuation", adopted from analytical individual psychology, is used to refer to the humanistic ideal of personality development, personal growth and (self-)insight. Considered a central property of the human condition, individuation is inherent in notions, such as existentially becoming "who one is meant to be", becoming a fully developed or fully functioning person, attaining higher levels of moral development, expanded consciousness, insight or enlightenment, self-actualization, following a calling, finding meaning, wisdom, insight, and spiritual awakening, and so on. As a political logic, the ideal of individuation would translate into proving safe spaces of opportunities, and support for pursuing diverse and heterogeneous forms and pathways of personal development in absence of economic purpose and pressure (e.g., offering unconditional basic income). As a social logic applied to the workplace, individuation broadly converges with ideals of self-actualization at work. including opportunities and discretion to autonomously pursue personally significant tasks, based on higher-order needs for growth, prosocial impact, and transcendence. As fantasmatic or psychodynamic logic, individuation evokes narratives of a personal journey, overcoming adversity, growth, self-insight, and homecoming. Note how these developmental imageries differ from neoliberal fantasies of excellence (omnipotence, invincibility, or exceptionality), as mandated by social logics of self-reliance and "responsibilization" against the "odds of the market", shifting increasing risks and externalized adverse outcomes towards individual members of society [16]. Counteracting these socially corrosive tendencies of individualism are humanistic ideals of individuation, combined with solidarity and emancipatory intentions.

2.2 Solidarity

Solidarity puts the focus on the social dimension of relationships and interactions with other people [22, 23, 24]. As an antipode to a neoliberal ideology of market competition, solidarity emphasizes collaboration, cohesion, and shared use of resources. Particularly, solidarity is directed at those who are in a similar situation as oneself, facing similar or worse struggles and adverse conditions, are exploited, marginalized, discriminated, excluded or otherwise disadvantaged by the system (e.g., economic struggle, wars, violence, injustice, etc.). As a political logic, solidarity is famously expressed in the dictum by Marx that the goal of society was treating everybody, not according to their contributions or possessions, but according to individual ability and needs. Before this type of enacted solidarity is possible, insight into common situations and shared interests is required, making solidarity a core component of "class consciousness", at least in societies based on social stratification and inequality. Counteracting inherent polarization tendencies of the monetary rule, solidarity means redistribution of resources, from those who appropriate and accumulate them, to those who most need them (e.g., strong welfare systems, high taxes on wealth). As a social logic, solidarity orients organizations and workplace practices towards structural participation and

models of common good economy and organizing, e.g., reducing differences in status, pay, and privileges [25 26, 27]. A fantasmatic logic behind solidarity is equality, the universality of the human situation and experience, relatedness, and connection among all people, and inherent value of prosocial and altruistic attitudes and actions. These contrast with individual self-interest and personal advantage, expressed in neoliberal fantasies of dominating through competitive advantages and superior market "penetration" and outperforming competitors.

2.3 Emancipation

The humanistic ideal of emancipation is the most comprehensive concept discussed here, with multiple layers of meanings. Emancipation generally refers to "liberation" or attaining freedom, by overcoming (overturning) exploitative, unjust, or limiting (coercive, manipulative) power-structures and power-dependence relationships [28]. In classic social critique, this refers to emancipation from class rule and (economically forced) wage labor. Aside from this macro-emancipatory meaning, today mostly abandoned as unrealistic or utopian, the organizational literature has highlighted so-called micro-emancipatory actions, through which employees increase their freedom at work – for instance, by resisting pressure and avoiding control by management, but also through self-actualizing by crafting and creating meaning and fulfillment in their work activities [29, 30]. It is a matter of critical debate, if, or at what point, micro-emancipation, can also maintain, stabilize and contribute to, rather than reduce domination and suppression [28]. Evident is that any political logic of emancipation emphasizes freedom and rights of all individuals, not primarily in the sense of economic liberties, but especially as liberation from artificial economic necessities, pressures, and crisis (e.g., unconditional income, degrowth, redistribution) [28, 31, 32]. Any social logic of emancipation would be oriented toward maximizing employee autonomy and influence, self-determination, self-organization, and participation, including semi-autonomous work groups and organizational democracy [26, 29, 31]. This counter-model to neoliberal ideology was framed as organizing for social transformation versus economic rationalization [10]. Underlying fantasmatic logics contrast humanistic freedom (from oppression and economic necessity) with neoliberal submission under rule of the market and capitalist institutions, portrayed as "natural laws of society" that must not be questioned. In contrast, emancipation is about challenging and overcoming the limitations, constraints, and shortcomings caused by the status quo in unbalanced, exploitative, societal, social, and interpersonal power structures.

3   ORGANIZATION: NEOLIBERAL VS. HUMANISTIC SOCIAL LOGICS

The authors of this essay have previously developed and used an earlier version of the antagonistic counter-principles of humanistic ideals and neoliberal ideology to analyze, deconstruct, and critically evaluate (psychological research on) flexible workplace practices [9, 10, 11, 12]. Focusing on individually negotiated work and employment conditions (idiosyncratic deals), the three suggested ideological antipodes (individualism vs. individuation; competition vs. solidarity; and instrumentality vs. emancipation) were used as an analytic grid to contrast the humanistic ideal of employee-oriented management practices that contribute to or facilitate psychological wellbeing, health, and personal development with the anti-type of a labor political power strategy, reproducing neoliberal agendas of divisiveness, austerity, and performativity. Accordingly, in workplace practices, these more abstract, higher-level beliefs (political logics) have been argued to manifest in oppositional (applied, implemented) social logics of: i) employee self-reliance vs. self-actualization; ii) tournament

situations vs. common welfare; iii) economic rationalization vs. social transformation. Table 2 provides an overview over how ideological antipodes have been conceptualized to manifest in antagonistic forms of flexible workplace practices. Based on this theoretical work, evaluation criteria for opposing practical implementation strategies of (neoliberal) individualized and humanistic (personalized) idiosyncratic work arrangements were developed with regards to their: a) objectives (humanization vs. rationalization goals); b) commonness (egalitarian vs. elitist distribution); c) content (relational vs. transactional resources); d) basis of authorization (need-based vs. contribution-based); e) organizational justice principles (procedural vs. distributive fairness); and f) work system embeddedness (supplementing vs. substituting collective HR practices and employee benefits).

Concluded was that, whereas humanistic conceptions of idiosyncratic deals can introduce additional layers of employee-oriented workplace flexibility, their implementation within a neoliberal paradigm provides a vehicle for economic rationalization and divisive labor-political power tactics. Further, attention is called to behavioral forces within high-performance work systems, where internalized tensions potentially re-emerge as self-exploitation, marketing orientation, and psychological governance [2, 5, 6]. The application of ideological antipodes of neoliberal and humanistic logics to the paradigm of workplace flexibility provides an important example for possible contributions of this model to the emerging study of ideologies at work. Personally, moreover, this research is also important because of its role in the authors' occupational biographies and scholarly development. However, it has been presented in detail elsewhere and, instead of reiterating it, here, the emphasis is on the individual (rather than societal or organizational / workplace) level, which will be discussed in the next section.

Table 2 Manifestation of Ideological Antipodes in Flexible Workplace Practices

NEOLIBERAL IDEOLOGY	HUMANISTIC IDEALS
Workplace flexibility as labor-political rationalization strategy promoting individualism, competition, instrumentality	Workplace flexibility as employee-oriented management practices promoting individuation, solidarity, emancipation
Individualism: **Self-Reliance** Responsibility-shift to individual; erosion of collective pursuit of common interests, social relationships and mutual support	**Individuation:** **Self-Actualization** Creating working conditions to support individual / collective learning, personality development, moral consciousness
Competition: **Tournament Situations** Performance-based allocation of scarce, universally valued resources according to logics of zero-sum, winner-take-all game	**Solidarity:** **Common Good** Unequal but fair treatment according to personal needs and situation, emphasizing win-win strategies and generative resources
Instrumentality: **Economic Rationalization** Defining and treating employees in cost-benefit, means-end, input-output terms as "resources" to be optimally utilized for profit, but without inherent value	**Emancipation:** **Social Transformation** Overcoming limiting, coercive or manipulative power-dependence relationships, increasing freedom and unconstrained psychological development

Note: Table adapted from Hornung and Höge (2019).

4 INDIVIDUAL: NEOLIBERAL VS. HUMANISTIC FANTASMATIC LOGICS

Aligned with the perspective on psychology and spirituality, the focus here is on the individual level, where political and social logics reappear in un-, semi- or subconscious fantasies, narratives, and imaginaries, evoking, channeling, and reflecting manifestations of either neoliberal ideologies or humanistic ideals [1 ,2, 5, 6]. For example, imageries of neoliberal logic are exemplified in fantasies of excellence and exceptionality (self-reliance), superiority and dominance (tournaments), and adaptation and submission (rationalization). Thee "rugged individualism" of complete self-reliance in uncertain and competitive conditions demands perpetual success, performance, and achievement – invincibility against the hardship of the markets – dominating over others by outperforming them according to tournament-like winner-looser logics. On the other hand, submission under the "supreme rule" of (the invisible hand of) the economy and its institutions (markets), fulfilling social roles, seeking status and affiliation. On the other side of the ideological spectrum, humanistic fantasies tend to emphasize growth (self-actualization), equality (commonality), and freedom (transformation). Importantly, these contents are exemplary and not deterministic or exhaustive. To strengthen the theoretical foundation of these fantasmatic aspects, structural relationships and parallels are emphasized with conceptualizations of: (a) alienation from critical sociology; (b) basic psychological need fulfillment from humanistic social psychology; (c) psychological research on meaning in life and work, which overlaps or (better) converges with (workplace) spirituality. Evidently, all of these are very comprehensive and elaborated concepts, each drawing on decades of theorizing and empirical research the extent and insights of which cannot even be sketched out here. Instead, some cursory notes on the suggested role of these concepts as useful descriptors in the ideological matrix model and references to more in-depth treatment in the literature are offered.

4.1 Alienation

Alienation is a core concept of social critique, going back to its "founding father", the classic writings of Karl Marx [33, 34, 35]. For Marx, alienation was a psychological state necessarily arising from objective conditions or circumstances, i.e., concentrated ownership over means of production and wage labor (the "employment system"), combined with the interest-driven and competitive accumulation of capital through extraction of "surplus value" from the labor process. Subsequent sociological and psychological work has adopted a more subjective redefinition of alienation as a response to adverse working conditions, such as highly repetitive tasks (division of labor) and lack of control or influence over their work [37]. Later, work alienation has been seen as converging with negative work-related states of depression, learned helplessness, and occupational burnout. Numerous definitions and measures of work alienation exist, many suggesting different dimensions of the concept, others treating work alienation as one integrated construct. One long-standing and influential conceptualization with some empirical support distinguishes the dimensions of self-estrangement, normlessness, isolation, powerlessness, and meaninglessness [38, 39]. These concepts were integrated in the matrix model. Here, self-estrangement refers to a loss of connection with one's "inner self", in the sense of personal congruence, authenticity, and agency, or the loss of a sense of positive identity. Normlessness means the lack or loss of shared prosocial norms and values, providing positive interactions and connection to other people. Isolation, the feeling of being disconnected, separated and detached from social others, is subsumed here under the dimension

of normlessness. Powerlessness refers to lack of influence and personal control, feeling dominated (weak, overpowered) by structural coercion and pressures. Meaninglessness, the lack of experienced purpose, orientation, and community, is included as a meta-dimension of alienated suffering. All dimensions are described in some detail elsewhere [38, 39] and, while certainly not all-encompassing of the broader critical concept of alienation [40, 41], these may provide a good starting point and structure to reflect about sources of alienation in one's own life, and how these relate to higher-level political and social logics, possibly adopted or accepted without questioning; and what changes could be made to live closer and more authentically up to the fulfillment of endorsed humanistic values and ideals.

4.2 Fulfillment

The fulfillment of human needs and development of human potentials are core ideals and aspirational goals of humanistic psychology. Numerous more or less convincing and complete taxonomies of human needs exist. Based on advances in social psychological self-determination theory empirically well-established are basic needs for competence, relatedness, and autonomy [42, 43, 44]. In other words, this refers to experiences of personal self-efficacy and accomplishment; felt acceptance and connection in a social group; and having (some) influence over the environment, specifically, freedom from constraints over choosing and carrying out own, self-determined, intrinsically motivated actions. In decades of research, fulfillment of these needs has been shown to contribute to intrinsic (autonomous) motivation, psychological wellbeing, and functioning in different life domains (e.g., work, sports, health). In the broader framework of self-determination theory, basic psychological needs theory is embedded into other sub- or mini theories, such as cognitive evaluation theory, organismic integration, and individual causality orientations theory [42, 45, 46]. At this point, however, the reader is referred to reviews of this theoretically and empirically rich and rigorous research. For the present purpose, the fulfillment of psychological needs for experiencing competence, relatedness, and autonomy (self-efficacy, connection, discretion) is seen as the basis for experiencing meaningfulness. As antipodes to self-, market-, and performance-oriented fantasies, fulfillment of competence, relatedness, and autonomy are understood as associated with humanistic fantasies of growth, equality, and freedom. These are suggested as contraindicated to alienating neoliberal fantasies of excellence, dominance, and submission (alternatively: exceptionality, superiority, adaptivity), as outlined below. Moreover, felt fulfillment of needs for competence, relatedness, and autonomy also provides a practical approach to structuring own (positive and negative) experiences, for instance, with regard to work, scholarship, or any other life domain or activity [44, 45]. Figuratively speaking, these needs provide a "golden triangle", or powerful "trident", in the quest for meaning in life and work activities.

4.3 Meaning

Meaning, significance, or sense of purpose, are established as fundamental aspects of comprehensive wellbeing, psychological functioning, and personality development [47, 48]. For instance, further differentiating the construct [49], meaning can be described as sense of coherence (e.g., fit between one's own values, beliefs or needs and the situation), direction (e.g., ethical norms, moral values, developmental goals and opportunities), significance (e.g., benefitting and helping others, contributing to personal important causes), and belonging (e.g., felt acceptance and inclusion in a social group). Whereas meaning can refer to life in general,

the focus of this essay tends to be on the specific domain of meaning in (or at) work. Note that numerous definitions, aspects, and connotation of meaning have been suggested. The conceptualization of meaningfulness used here, drawing on self-determination theory, is derived from the fulfillment of psychological needs for competence, relatedness and autonomy, mental states that are close to core aspects of meaning (e.g., self-efficacy, connection, and empowerment). Meaninglessness, on the other hand, is described in terms of corresponding dimensions of alienation, i.e., self-estrangement, normlessness (isolation), and powerlessness. Based on previous research, experienced meaninglessness and -fulness are included as two (bipolar) meta-dimensions of alienation, respectively, psychosocial wellbeing. This addition takes into account that meaning is a complex experience, which can assume mixed, hybrid or paradox forms. For instance, people differ in their "existential involvement", such that some suffer more and others less from absence of meaningful experiences [49, 50]. This means that, aside from the fully alienated (high alienation, low fulfillment) and the truly fulfilled (high fulfillment, low alienation), there could also be groups and individuals, who are existentially indifferent (low fulfillment, low alienation) or existentially unstable or fluctuating (high fulfillment, high alienation). One implication of this is that attempts to actively create meaning (e.g., by helping others or contributing to a socially important cause) and efforts to remove (ideological) barriers or obstacles to meaning (e.g., overcoming economistic thinking) are complementary strategies for cultivating humanistic ideals and values, as part of the broader emancipatory project envisioned here.

Meaning is a central dimension of human experience and can be consciously reflected about, thus providing a good entrance point or, figuratively speaking, even a "portal" or "gateway" into the "internal" ideological matrix. This internal matrix means the personal mental (cognitive and affective) representation or model of the organized structure of concepts and descriptors, suggested here in more abstract and theoretical terms from an academic perspective. Certainly, the actual experience of meaning, fulfillment, and alienation includes the full range of physical, psychological and spiritual aspects, which can help guiding decisions on how to adopt, live, and promote humanistic ideals at least on a personal level [51]. Some preliminary thoughts on how to cultivate suggested ideals of critical humanistic psychology will follow next.

5   CONCLUSION: CULTIVATING CRITICAL HUMANISTIC PSYCHOLOGY

Finally, this contribution seeks to explore some implications of the ideological matrix model for scholars in work and organizational psychology and related fields, who are confronting pressures, dilemmas and potential repercussions in positioning their academic work and careers, that is, their professional and personal identities, along the described ideological rifts and antagonisms [24, 40, 52]. This target group of applied psychologists goes back to the initial context of the introduction of the model of neoliberal ideology [7, 8, 9], but it is also part of the authors' professional and personal situation, self-reflection and biographies. Still, the use and transfer of abstract and theoretical academic concepts and models into action-guiding principles, lived everyday behavior, experience, and insight, however, is a difficult, contentious issue and, literally, "easier said than done". Even more so on the level of work organizations and society as a whole, without falling into the traps of "fantasmatic fallacies" of utopian idealism or dreams of socially engineered "harmony" The following considerations, therefore, are tentative and preliminary at best fragmentary and incomplete, focusing mostly on the individual level and personal experience. On the individual or personal level, a suggested

developmental practice is to meditate, reflect or think in philosophical and practical terms about the meaning of different concepts, descriptors or fields in the ideological matrix model, as well as their suggested interrelationships (common references, antagonisms, levels) – and changing, adapting, complementing or rearranging them, to better correspond with one's own purpose, situation or understanding. As mentioned above, the concepts and terms included here are exemplary and illustrative, not exhaustive or deterministic.

Table 3 provides an illustration for the rearrangement of matrix contents, starting from individual humanistic fantasies (values, visions, or ideals) of growth, equality, and freedom, considering helpful and hindering factors and levers regarding how these goals to be actually realized, attained or at least pursued in different ways. This includes personal associations and interpretations, which may be guided by questions, such as: "What does a certain concept mean for me personally or specifically? (e.g., growth, alienation, freedom)", "How do these concepts relate to each other for me? (e.g., synergies, tensions, trade-offs)"; "How do they apply to more concrete situations or domains in my life? (e.g., professional, personal)"; and "What are implications for my own thinking and actions? (e.g., career and life choices)". One recommended approach here is to start at the "bottom" of the matrix from (latent) psychological experiences of meaning (-fullness/-lessness) and respective fantasmatic logics, proceeding up to higher rows, exploring what situations trigger either positive (fulfilling) or negative (alienating) associations. In Table 3, such an approach is provided, structured according to humanistic ideals of growth, equality, and freedom. The matrix shown includes examples and personal association with regard to fantasmatic neoliberal and humanistic logics, associated states, and other elements of a rearranged matrix structure, as a method or tool for personal development through reflection, contemplation or meditation, application and personalization, and presentation and discussion. For this purpose, the table contains blank "entry fields" with regard to what features or aspects of activities, situations, or goals are experienced as meaningful or meaningless to be completed based on reflecting on personal experiences and associations. Some prompts in this direction are included for illustration, such as: a) dignity and purpose vs. power and profit; b) sharing and helping; c) winning and gaining; c) principle and resistance vs. reward and privilege. Notably, these are exemplary contents and, as in with most personal development activities, the goal "resides in the process", such that starting to reflect on these higher-level humanistic ideals and socio-moral values is inherently developmental and will find its own appropriate expression.

After having outlined some conceptual and theoretical foundations and illustrated some potential for the application of the suggested matrix model of ideological antagonisms or antipodes, further uses for personal development and engaged critical scholarship should be explored with regard to more specific ways for counteracting neoliberal ideology by cultivating humanistic ideals of individuation, solidarity, and emancipation, as vaguely suggested here [21, 22, 28, 29]. It is understood and appreciated that many of these issues require further elaboration and deliberation [40, 52]. This is the reason for their presentation for discussion in this forum, which has already proven to be an inspiring and transformational event and motivating occasion to reflect on and write down some of these considerations. Admittedly, these ideas are still in a fragmentary state requiring further theoretical development, integration, and, probably most of all, practical application and enactment in new social politics, alternative organizations, and in everyday work and personal activity.

Table 3 Rearranged Ideological Matrix as Personal Development Exercise

HUMANISTIC IDEALS / FANTASIES	GROWTH	EQUALITY	FREEDOM
Main References	Person, Self, Identity	People, Others, Interactions	Power, Society, Institutions
Focus: Individual (self, activity)	**Individuation** (self-actualization)	XXX	XXX
Focus: Organization (workplace)	XXX	**Solidarity** (common good)	XXX
Focus: Society (political economy)	XXX	XXX	**Emancipation** (social transformation)
Fulfillment of Psychological Needs (experiences)	**Competence** (self-efficacy, mastery, learning)	**Relatedness** (acceptance, connection, involvement)	**Autonomy** (discretion, control, empowerment)
Alienating Neoliberal Political Logics (workplace practices)	**Individualism** (employee self-reliance)	**Competition** (tournament situations)	**Instrumentality** (economic rationalization)
Alienated Psychological States (personal associations)	**Self-estrangement** (detachment from higher values and moral compass)	**Normlessness / Isolation** (separation, loneliness, distrust in relationships)	**Powerlessness** (paralysis, passivity, apathy, compliance and conformity)
Alienating Fantasmatic Logics (personal associations)	**Excellence** **(Exceptionality)** (perpetual success, performance, achievement)	**Superiority** **(Dominance)** (outperforming others, being better, winner-loser mentality)	**Adaptivity** **(Submission)** (fulfilling social roles, seeking acceptance, status)
Activities / Goals Experienced as Meaningful	YYY (dignity, purpose)	YYY (sharing, helping)	YYY (principle, resistance)
Activities / Goals Experienced as Meaningless	YYY (power, profit)	YYY (winning, gaining)	YYY (reward, privilege)

Note: Exemplary rearrangement and elaboration of the ideological matrix model for personal development, reflection, and discussion; XXX = relationships to be theoretically elaborated; YYY = to be completed based on reflecting on personal experiences; associations and prompts in parentheses for illustration.

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The Ideology of Transhumanism: A Vision of a Coming Utopia or an Impending Threat to Religion and Spirituality?

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ABSTRACT

At a first glance, transhumanism offers very little, if anything, as a potential religion in the making. However, it is a very broad social movement, underpinned by adherence to reason and seemingly humanistic and altruistic motives. However, concerns have been raised in the past regarding the dangers of blind adherence to reason, the most common one being the interpretation of the revolutionary terror in France. Another, much more important concern is where this adherence to reason, as if reason itself were an object of religious adoration, could lead to? Governments of countries such as People's Republic of China have already proven themselves all too willing to embrace technological advancement in order to better secure and consolidate their power – it is no secret that the omnipresence and omnipotence of the Chinese Communist Party is enforced through advanced surveillance technology. Transhumanism offers a gradual synthesis between man and machine, until the point man simply becomes an evolutionary point buried in a distant past. This make transhumanism take on an anti-humanist note, aside from the fact that it is not improbable that a cyborg population will be easier to control. Despite all the hope in a better, utopian future that transhumanism offers, transhumanism has also been associated with greater government and corporate control, surveillance state and growing inequality. What this paper seeks to examine is whether transhumanism is slowly starting to reshape human scoeities in the image of a pyramid. By examining the foundations of transhumanism, we will be able to more accurately project as to where continued alteration will lead humanity in the foreseeable future.

INTRODUCTION

Is transhumanism the new religion of our age? The answer to this complex and delicate question rests upon two pillars, the first being our understanding of transhumanism, with the other being our understanding of religion. Even though transhumanism is based on principles of scientific rationalism, it has matured during recent decades into an independent, somewhat utopian movement. This is understandable, considering that the implications of transhumanist thought, if taken to their logical extreme and superimposed on society, will create a future which its adherents currently consider to be a utopia. Since time immemorial, man has interacted with and influenced nature, for the sake of his own well-being. However, unlike fields of human activity such as agriculture, transhumanism presupposed scientific intervention in one very specific part of nature: the human genome itself.

At the core of transhumanism lies evolution and enhancement of the human genome guided by science, in order to allow humanity to overcome it's limitations and shortcomings – in short, transhumanism's aim is to increase the quality of the human species itself, thus improving its quality of life drastically. The biotechnological revolution has, as is to be expected, stoked the flames of these utopian dreams and ambitions. To Julian Huxley, the Godfather of Transhumanism, "nature is not a mechanism, but a process". (Huxley, 1950, p.41) and technology is merely the accelerator of said process: from animal, came man, from man, something greater will come. Huxley's motives are altruistic – for his part, he believed that this new state of mankind's existence will alleviate many ills that have plagued humanity for millennia: defective genes, congenital diseases, loss of limbs and other forms of impairment, longevity of life, old age – and, perhaps, even death (Huxley, 1968). Nick Bostrom, one of the most prominent advocates of transhumanism today, believes the roots of transhumanism lie in rational humanism of the Enlightenment era (Bostrom, 2005a, p.3), the impulse of mankind to gain mastery over nature and alleviate its own suffering, as well as the human desire to obtain new capacities. Limitations, or rather, in-built defects of human nature are generally taken a negative stance against by transhumanists, and this is to be achieved via "various kinds of technology, including genetic engineering, cybernetics, computation and nanotechnology" (McNamee & Edwards, 2006, p.514).

However, the idea, and, mayhaps, the *ideology* of transhumanism is not without its objectors. The first one is that of common sense. Medicine has gradually moved from public health, and into the realm of the inner workings of the human body (Jones & Whitaker, 2012, p.258). As Huxley noted, this is merely a continuous evolutionary process of cosmos becoming aware of itself (Huxley, 1968, p.73). However, at this time, we are unable to fully understand when and where this process would end, and whether an everlasting Utopia would be created, or a totalitarian nightmare-world along the lines of Orwell's *1984* and (Aldous) Huxley's *Brave New World*. Bostrom, for example, is more than aware that futuristic technology carries immense potential for abuse: "...they also could be misused to cause enormous harm, ranging all the way to the extreme possibility of intelligent life becoming extinct. Other potential negative outcomes include widening social inequalities or a gradual erosion of the hard-to-quantify assets that we care deeply about..." (Bostrom, 2005b, p.4). In the introduction to his book regarding transhumanism, Andrew Pilsch notes that transhumanism represents a struggle that resurrected humanity's hopes in finally achieving utopia, promised by Marxism and Marxist ideologies, yet that very same utopia gave way to the inexorable march of neoliberal capitalism (Pilsch, 2017, p. 3). For the most part, the greatest utopian ideologies of the 20th

century – Communism and Socialism – turned rather quickly from utopian daydreaming, to revolution, to dystopian nightmare, which persists in North Korea even today. One important facet of Marxism, largely overlooked today, is its religious nature. Thus Schumpeter (Schumpeter, 2003) wrote: "Marxism is a religion. To the believer it presents, first, a system of ultimate ends that embody the meaning of life and are absolute standards by which to judge events and actions; and, secondly, a guide to those ends which implies a plan of salvation and the indication of the evil from which mankind, or a chosen section of mankind, is to be saved" (p. 5). That, he explains, is why it was so successful. Other experts note that attitude towards religion in the Soviet Union had been "more strident, possibly more nervous, and certainly more openly and strenuously hostile. This is essentially the nature of the hostility of one ideology for another" (Ling, 1980, p. 159). Rachik notes that religion, while not exactly the same as ideology, plays a similar role in society, while also noting that it goes both ways: religions may turn into ideologies, but ideologies, even non-religious ones (e.g. Marxism) may also may also gain a deeply religious context (Rachik, 2009, p. 347-348). Transhumanism is "not the goal, but the *process* to synthetically evolve the human race more rapidly than organic evolution allows" (McCollum 2013, p. v). This is a very broad definition, and the term "transhumanism" thus encompasses a variety of ideologies, beliefs and ideological systems. Transhumanism is by no means an organized religion. There is no belief system, no official dogma, no high ecclesiastical authority, to name but a few. Its claimed foundations are reason, science and technology. However, it has been demonstrated that a completely non-religious system of ideas – which transhumanism certainly *is* – can take on a (quasi)religious/ideological bent. We will attempt to resolve whether transhumanism qualifies not as organized religion *per se*, but whether the aggregate ideas provided by transhumanist thinkers fulfills the criteria of a system of religious thought. This paper also seeks to examine whether the aforementioned is the case with transhumanism, and whether, as some authors predict, meticulous adherence to the ideals of transhumanism leads to a dystopian future.

1. DEFINING TRANSHUMANISM AS A POSSIBLE RELIGION

For the most part, transhumanists see transhumanism as naturally-occurring phenomenon, rather than a social or cultural trend. To them, it is a part of a much more grand historic narrative that began as early as sentient life appeared on the surface of our planet. It is important to not that there is no official transhumanist authority that represents worldwide transhumanism – rather, it is a loose and diverse collection of individuals and groups with varying philosophical stances. What we can, however, set apart as a common denominator of all transhumanist currents is a proclivity for using technology, as well as a quasi-Aristotelian worldview, the understanding of Nature that strives towards perfection (Klichowski, 2015, p. 432). Much like Aristotle and the philosophers of the Enlightenment, transhumanism promotes supremacy of reason and autonomy of the individual. In chapters to come, the "ideological fuel" of transhumanist thought shall be given further examination, in order to determine whether the idea of the supremacy of reason is, in fact, reasonable. The assumption that the *Homo Sapiens* is a rational being acting in his own best interest is the foundation of rationalism, from Aristotle, all the way up to transhumanism. However, it should be noted that the cult of reason is, in and by itself, a dogma – as seen during the terrors of the Jacobin reign throughout the French Revolution. Religion, however, only partially translates, according to thinkers such as Habermas, into a concept understandable and amenable to secular reason (Roesner, 2015, p. 828), mostly owing to the fact that there is always the mysterious, faith-based part of a religion,

which comes from personal relationship with a divinity. Yet, if so, it would make it impossible for reason-based transhumanism to even supplement, let alone displace or altogether coerce into nonexistence any of the world's religions. Transhumanism, however, does have a "set" of teachings, and, despite claims to transhumanism being voluntary and value-neutral, it is still a social movement, and as such it carries with itself a certain set of values and beliefs. In order to understand what these are, an individual ought to consider whence transhumanism stems from – what is, exactly, transhumanism's historical and philosophical basis?

2. ON THE HISTORICAL ROOTS OF TRANSHUMANISM

Transhumanism is mostly seen as a 20th century phenomenon. The World Transhumanist Association, now called *Humanity+*, was formed in 1998, with a purpose of "elevating the human condition" (Alfsvåg, 2015, p. 257). Transhumanist thinkers do not see transhumanism as a recently formed, independent system of ideas. Rather, they see transhumanism as a system of ideas formed out of humanity impulse to make their lives easier. As Bostrom states: "We have always sought to expand the boundaries of our existence, be it socially, geographically, or mentally" (Bostrom, 2005a, p. 1). Any attempt by humans to expand the limits and/or remove the inherent defects associated with human condition can be considered a precursor to transhumanism. Transhumanists see the human body, as, in the words of Max More, "a marvelous yet flawed piece of engineering" (More & More, 2015, p. 15). Human suffering, as a whole, has always been the focal point of humanity's creative efforts. Bostrom notes that the Epic of Gilgamesh, dated 1700 B.C., speaks of humanity's effort to overcome death, and suffering associated with death (Bostrom, 2005a, p. 1). And, indeed – once given such a contextual framework, the Epic becomes a transhumanist manifesto in its own right. It could be said that the basic idea – the improvement of the human condition – came as early as humanity did. However, up until the 19th century, there could have been no serious effort to modify the human genome towards a beneficial end. In the words of Bostrom, „There are limits to how much can be achieved by low-tech means such as education, philosophical contemplation, moral self-scrutiny, and other such methods proposed by classical philosophers with perfectionist leanings, including Plato, Aristotle, and Nietzsche, or by means of creating a fairer and better society, as envisioned by social reformists such as Marx or Martin Luther King"(Bostrom, 2005b, p. 9).

Another idea that transhumanism advocates is the change of the world and society that we reside in. Discourse on transhumanism today is often focused on the human genome and bioethics – and that is the most contentious issue of the transhumanist *credo*. However, the idea to overcome fundamental human limitations gained new traction during the Age of Enlightenment. Hughes vividly describes the hopes of early 18th century humanity: „With the emergence of the European Enlightenment in the 1700s, however, these aspirations found expression in the belief that a new world could and would be built on foundations of reason, science, and technology. All people would be united in an egalitarian commonwealth, freed by machines from poverty and the necessity of toil, from disease and even death by scientific medicine, and ennobled by heights of civilizational achievement"(Hughes, 2012, p. 758). This was, essentially, the historical starting point of machine-related utopian aspirations. However, throughtout the course of the Enlightenment, the *homo sapiens* remained, in the words of Protagoras, the measure of all things. Man was seen as a world apart from nature, owing to the discrepancy between human brains, and those of other mammals – this anatomical differences in information processing, teaching, memory, causal reasoning, planning, language, and even

deception (Premack, 2007) leading to the rise of human civilization. However, this was just a foreshadowing of what the civilization of man would become in the early 19th century. After the dust had settled from the Napoleonic wars, Europe and North America would experience a dizzying technological surge onwards. As Stoddard put it:

"Suddenly, astoundingly, all was changed. The hidden forces of nature yielded themselves wholesale, as though at the wave of a magician's wand. Steam, electricity, petrol, and a whole series of mysterious "rays" and "waves" gave man powers of which he had not even dreamed. These powers were promptly harnessed to innumerable machines which soon transformed every phase of human existence. Production and transportation were alike revolutionized, distance was well-nigh abolished, and the very planet shrunk to the measure of human hands. In other words, man suddenly entered a new material world, differing not merely in degree but in kind from that of his grandfathers" (Stoddard, 1923, p. 6).

What's even more astounding was how mankind saw itself. It had always sought to subdue nature and bend it to his will. The Industrial Revolution had merely enhanced the understanding and control man had over nature. It did not change man's perception of nature and of himself. However, around that time, Darwin's *The Origin of Species* first appeared (Darwin, 2009). Even though the book itself does not deal specifically with human evolution, the implications that man was, like all other phenotypes, just another link in the evolutionary chain, were too obvious to ignore (Veldhuis *et al.*, 2014, p. 3520). At the core of the implication was a postulate that the entirety of the biosphere on Earth is, in fact, in the process of the evolutionary continuum (Kutschera, 2009, p. 1251). Around that time, several other works came out, which are of extreme importance pertaining to how mankind saw itself. These include Darwin's *The Descent of Man*, first published in 1871 (Darwin, 1981), Charles Lyell's *The Geological Evidences of the Antiquity of Man*, published in 1863 (Lyell, 1863), which helped crystallize the archaeological evidence regarding the origins of man, collected throughout the first half of the 19th century (Cohen, 1998, p. 83), as well as Thomas Huxley's opus, also published in 1863, *Evidence as to Man's Place in Nature* (Huxley, 1886).

All of this has changed how man views himself. His origin and purpose in the universe were drastically different at the dawn of the 20th century to what they were just one hundred years beforehand. In his 1903 essay titled A Free Man's Worship, Bertrand Russel speaks that man has come to see the universe as fundamentally indifferent, and perhaps on some level hostile, towards him:

„That Man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and his beliefs, are but the outcome of accidental collocations of atoms; that no fire, no heroism, no intensity of thought and feeling, can preserve an individual life beyond the grave; that all the labours of the ages, all the devotion, all the inspiration, all the noonday brightness of human genius, are destined to extinction in the vast death of the solar system, and that the whole temple of Man's achievement must inevitably be buried beneath the debris of a universe in ruins—all these things, if not quite beyond dispute, are yet so nearly certain, that no philosophy which rejects them can hope to stand" (Russel, 2009, p. 39).

However, it took several centuries – or, more precisely, several millennia – for man to arrive to a conclusion that the universe might not be divinely ordered according to man's needs. A

particularly pessimistic, if completely understandable, view belongs to theoretical physicist Steven Weinberg – according to Weinberg (1993) the universe is overwhelmingly hostile, it evolved from an unfamiliar early condition, and "faces a future extinction of endless cold or intolerable heat" (p. 148-149). Stepping outside of his native field of theoretical physics, Weinberg declares that "The more the universe seems comprehensible, the more it also seems pointless" (*Ibid*, p. 149). How did we, as a species, arrive so quickly from a divinely ordered universe to a product of a cosmic whim, chance and randomness? Two decades ago, Arthur Peacocke came to a conclusion with grave existential implications: that *Homo Sapiens* seems to be a "rising beast" rather than a "fallen angel" (Peacocke, 2000, p. 134). This "radical split" as Huyssteen put it (Huysteen, 2003, p. 176), between man and the rest of nature was now gone. Man is now understood to be part of nature is the same vein as all other life forms, which, in turn, gives traction to transhumanism.

Transhumanism, as we understand it today, was born in the 20th century, in a time where man's quest for meaning is in full swing. Two world wars have changed man's conception of meaning, society and himself. Before the radical changes that occurred in the last two centuries, man's source of identity was the collective that he belonged to – the Greek *polis*, the Mesopotamian city-state, the local religious community, or a broader religious tradition, such as Protestantism, Catholicism, Orthodoxy, Sunni Islam, Tao-te-Ching and so on, to name but a few – however, after 1945. we see an atomized individual searching for meaning and searching for identity. God was, for the most part, expelled out of the public sphere, and while the aforementioned "Fallen Angel" had a Divine Creator, and thus a role in the universe, the "Rising Beast" certainly didn't. Hannah Arendt notes that future for humanity, after the Third Reich has finally fallen, looked grim indeed: "This moment of anticipation is like the calm that settles after all hopes have died. We no longer hope for an eventual restoration of the old world order with all its traditions" (Arendt, 1979, p. vii). In such an age, humanity has once again asked itself the eons-old question "Why is there anything at all?", which is a question that either leads us to God as Being (Peacocke, 2004, p. 397), or to nihilism. The main question of 20th century existentialist philosophy was summed, in our opinion perfectly, by Camus: "Judging whether life is or is not worth living amounts to answering the fundamental question of philosophy" (Camus, 1979, p. 11). The primary drive behind Cold War-era existentialism was to somehow overcome the "life-denying" philosophy of nihilism, and the denial of meaning and purpose it carries (Veit, 2018, p. 212). The revolting events of World War Two were considered to be manufactured by men who embraced nihilism through totalitarian ideologies of National Socialism, Fascism and Communism (Zaretsky, 2013, p. 120). Perhaps one of the reasons why Transhumanism moved so quickly from a fringe movement to becoming an ideology to be taken seriously is because it revives humanity's optimism in a brighter future. Right after the horrors of concentration camps had been unveiled to a largely ignorant public, mankind has firsthand witnessed the power weaponized nuclear fission. A fear of nuclear escalation, at the time, seemed very realistic. During the 1983 annual meeting of the American Psychiatric Association, the prominent psychiatrist Robert Jay Lifton noted that "... the visual image of an overwhelming mushroom cloud hadalready evoked the vision of man's extermination of his species by means of his own technology" (Mausbach, 2016, p. 31). Foucault acknowledges that Nietzsche's Death of God, is, in fact, the death of humanity that killed the deity, and it is not (only) God that died, so, too "man will disappear" (Foucault, 2002, p. 420). Thus, the humanistic ideals of the Renaissance and the Enlightenment have completely perished from Western philosophy, with God being the first to perish, then man himself

(Brumlik, 2016, p. 124-125), which opens a way for a "medium" between the philosophical concept of God, and that of man – something lesser than a God, but greater than man – *incipit* transhumanism.

3. TRANSHUMANISM, THE RENAISSANCE AND THE ENLIGHTENMENT

Transhumanists such as Bostrom (2003) emphasize that the milestone beyond which human society became anthropocentric, as opposed to theocentric, was Renaissance, and specifically, Giovanni Pico della Mirandola's *Oration on the Dignity of Man* (p. 39). A famous and oft-quoted line from the aforementioned oration states as follows:

"We [it is important to note that the first person plural is most likely referring to the Holy Trinity – author's comment] have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer. It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine" (Mirandola, 1956, p. 7).

It is important to note that Renaissance-era humanism does not automatically include an anti-religious stance. Man was still considered a creature created by God, and, while Renaissance did see a surge of interest in Greek and Roman culture, art and philosophy, this interest did not arise in opposition to Christianity, furthermore, it boosted Christianity's religious vigor in the West (Monfasani, 2000, p. 1162). One of the greatest 20th century scholars of the Renaissance, Paul Oskar Kristeller, notes that "Since the religious convictions of Christianity were either retained or transformed, but never really challenged, it seems more appropriate to call the Renaissance a fundamentally Christian age" (Kristeller, 1961, p. 73). For the greatest part, Christian humanists of the 15th and 16th centuries respected ancient Greek and Roman thinkers to the point of believing that they [*id est*, the ancients] have somehow glimpsed a fragment of the divine truth before the age of Christ (O'Malley, 2019, p. 260). This was especially true of Plato – Wild notes that Plato's philosophy is in many ways compatible with Christian thought, especially in opposition to any form of monism or absolutism – the created world is, according to both doctrines, "a world of time and change in which finite entities are acted upon and act on one another" (Wild, 1949, p. 10). The renowned historian of ideas, Arthur Oncken Lovejoy, notes that Plato's idea of Good, became Aristotle's idea of God, and that there is thus little doubt that these ideas "wormed" their way into Christian theology of the Middle Ages, therefore becoming one of the aspects of the Holy Trinity (Lovejoy, 1933, p. 41-42). One of the greatest Church Fathers, Irenaeus of Lyons, for example, used platonic ideas of "being" and "becoming" to explain humanity's condition: Only God *is* – everything else is either in a state of coming into being, or passing away. It is in the nature of the entirety of creation to *become*, and by constantly becoming, humans live in a sort of ontological paradox: they are entities acted upon, as they were, after all, created by God, and it is in their nature, like in God's, to create and improve upon nature and upon themselves (Minns, 2006. p. 271). This is very similar to Mirandola's concept of gradually ascending humanity that gradually moves towards the likeness of absolute Divinity.

Another frequently cited *opus* is Francis Bacon's *Novum Organum* (Bacon, 1902). Lilley (Lilley, 2013) notes that Bacon called for "[...] the development of of technologies [in order to] achieve religios goals", these being: a) to recover the power of dominion (presumably over nature – M.Č.) which had been lost with the Fall of Adam; b) to allow man to better appreciate

his likeness to God; c) to harness the power of technology to wage war against the Antichrist and his minions (p. 20). Transhumanism of the 21st century certainly would certainly find the first goal most relatable to. The second goal is much more situational. According to a memeber survey conducted by the World Transhumanist Association (Now Humanity+), 62% of Humanity+ members' sample (a total of around 1100 individuals) subscribe to a non-theistic worldview, out of which 30% are atheist, 16% agnostic, 9% seculat humanist, and 7% belong to some other non-theistic philosophy. By comparison, 24% consider themselves non-religious or spiritual, while the remaining 14% have answered either „None of the above" or „Don't know" (Hughes, 2007, p. 5). Even though 24% is a significant percentage, Hughes also notes that „Transhumanists are nearly unanimous in believing that there is no supernatural spirit, that the mind is a product of the brain, and that machines with self-aware intelligence are possible" (*Ibid*, p. 6). This implies that the Enlightenemtn think that transhumanists can mostly relate to, regardless of Bostrom's invocation of Francis Bacon (Bostrom, 2005a, p. 2), the ideas of another, but much less renowned thinker: Julien Offray de La Mettrie, who postulates the mechanistic principle, (Carus, 1913, p. 297). Namely, Mettrie completely separates his understanding of man from the entirety of Western philosophical, theological and metaphysical tradition by stating that the problem of the human mind is a materialist (physical) problem – that is, man is, mind and body, completely mechanical, and even „psychic events are regularly produced by organic causes" (Vartanian, 1960, p. 13). This, of course, completely disqualifies the theological notion of the soul, and shatters any ideals of humans as metaphysical beings – it is, pure and simple, materialism brought to its logical extreme (Wellman, 1992, p. 186-187). It was then and there that man truly became the center of the universe. Descartes, albeit a devout Roman Catholic, did much to encapsulate rationalist-materialist basis of today's transhumanism. As Hatfield (Hatfield, 1988) states: „(…) the explanations in Descartes' writings on natural philosophy involved the conjectural positing of microstructures; the primary explanatory work was performed not by laws, but by the positing of configural mechanisms, like so many gears in a clock, or like so many valves in a hydraulic machine" (p. 252). Certainly, such a mechanistic outlook is not strictly antichristian, or exclusively materialist, or, for that matter, anti-human or inherently transhuman. However, it is also, by no means unique. Even though mechanistic materialism seems to be the norm throughout the Enlightenment, a closer look at some philosophical stances of individual Enlightenment philosophers will show that a dualistic outlook was rather common during the Age of Reason.

Table 1: Enlightenment philosophers and their view of the mechanist/materialist universe	
Pierre Gassendi	Gassendi does use a mechanism as a description of nature and the universe – but his philosophy is closer to atomism (Lolordo, 2007, p. 154). Nature should be operated on to better suit human purposes (Lennon, 1993, p. 12). Gassendi's principial unit is the atom, which only has four qualities: size, shape, weight and motion (Lolordo, 2007, p. 155). Cosmos was finite, and so was the number of atoms, which God's providence had ordered into shape (Spink, 2013, p. 88).
Thomas Hobbes	Thomas Hobbes upheld the attitude that humans – mind (*mens*) included – were material, and that this totality of materialism even applied to God Himself (Duncan, 2021). *Prima facie*, Hobbes seems to believe that even the mere act of thinking is material (Duncan, 2005, p. 446). The soul (*anima*), however, differs from the mind in

	the sense that in only can be conceivable, and not imagined – like God himself (*Ibid*). Secondary qualities – sound, heat, color – are not objectively real, and are the product of the only really objective quality of reality, which is motion, as much as there was no such thing as an incorporeal substance (Kenny, 2006, p. 43). The logical deduction is that Hobbes considered human beings in mechanicically, that is, in physicalistic terms (Boulting, 2007, p. 203).
René Descartes	Descartes maintained that the soul was immaterial and immortal (Clarke, 2006, p. 241). Descartes is not materialist in the strict sense of the word, as he believed that mind and body possess two distinctive essences – thus making them two radically different substances (Agius, 2015, p. 97). The distinction between mind and matter was so great that, according to Descartes, it was absurd to regard them as unified (Gombay, 2007, p. 112). Descartes sought out a mechanistic rationalisty, seeing the world as a machine operating on the principles of mechanical contact between various parts of the material – *res extensa* (Heller, 2011, p. 40). This is contrasted by the *res cogitans*, which, according to Descartes, is a separate mental substance, used for cognition only (Gaukroger, 1995, p. 290). The ontological dualism of Descartes is radical, as the two substances do not share any interaction (Grobet, 2010, p. 520).
Gottfried Wilhelm Leibniz	Leibniz agrees with Gassendi and Descartes on the basic premise, that all differences between bodies can be explained in terms of size, shape and motion (Garber, 1995, p. 275). His dualism, somewhat akin to that of Descartes, differentiates efficient causes, according to which bodies act, and final causes, according to which souls act (Look, 2020). He does not question the established opinion that all physical phenomena in the universe can be explained mechanically (Duschenau, 1989, p. 165).
Henry More	More's philosophy and theology can be broadly interpreted as a response to materialism, especially as espoused by Gassendi and Hobbes, which he saw as fundamentally atheistic (Vermeir, 2008, p. 4). Instead, he supported Cartesian dualism, which he saw as an extension of Platonism, as opposed to the *Geist* of Aristotelian and Epicurean atomist materialism made manifest in the works of the aforementioned materialists (Henry, 1986, p. 178). His ideas led to his conception of the "Spirit of Nature" – immaterial, and pervading everything (Henry, 1987, p. 24).
Immanuel Kant	Kant's materialism was later believed to be of the empirio-criticist variety (Timpanaro, 1975, p. 80). While some authors, such as Allison, believe that Kant wa nted to refute materialism (Allison, 1989). Kantian "things-in-themselves", while not entirely pneumatic (since they are not temporal), are definitely not spatial or temporal, and are, in fact, akin to minds (Ameriks, 2000, p. 309). Kan't argument for the argument of unity, as opposed to composition of the thinking subject is strictly immaterialist (Thiel, 2020, p. 135). However, one should note that this argument is not as anti-materialist

	as it may seem – he doesn't offer a full refutation of universal, cosmological or psychological materialism (Watkins, 2016, p. 1035).
Nicolas Malebranche	Even though Malebranche simply confirms and furthers the dualism as seen with Descartes, he challenges several Cartesian theses, among which is the supposition that the mind is better known as the body (Nadler, 2006, p.32). Furthermore, he considers it impossible to apply the mathematical principles of geometry to thoughts – for example, qualities like pain, hear and color belong to the mind and mind only (Rozemond, 2016, p. 850).
Isaac Newton	Newton's dialectic of mind and body is a return from Cartesian dualism, which Newton found untenable. Mind and body do not possess an existence independent of each other, because, assuming such a division, human beings would not be able to exist and/or function (Dempsey, 2006, p. 424-425). However, what sets Newton truly apart is his bracketing of causality into mathematical formulas as well as his determinism (Dougherty, 2016, p. 32-33).
Pierre-Simon Laplace	Laplace further advocates Hobbesian and Newtonian deterministic approach – he goes so far as to claim that what we consider "free will" cannot truly exist without a deterministic motive (Strien, 2014, p. 27), thus his causality operates on the narrative of sufficient reason.

However, the unshakeable conviction with which aforementioned philosophers spoke about the existence of the intangible soul did not deter them from thinking of man in purely materialistic terms – as a rational being poised to use his reason (whether his reason is independent from his body or not is irrelevant) in order to achieve mastery over nature. Consider, for example, Descartes once again:

"For these notions have made me see that it is possible to attain knowledge which is very useful in life, and that unlike the speculative philosophy that is taught in the schools, it can be turned into a practice by which, knowing the power and action of fire, water, air, stars, the heavens, and all the other bodies that are around us as distinctly as we know the different trades of our craftsmen, we could put them to all the uses for which they are suited and thus make ourselves as it were the masters and possessors of nature" (Descartes, 2006, p. 51).

The change in philosophical attitude was radically different to that of, for example, Aristotelian scholastics of the 13th century, and Thomas Aquinas in particulat. It was no longer God that was in possession of Nature, now, it was man, and, therefore, it was up to man to make any improvements upon Nature, as he saw fit and necessary, according to his own moral compass. It would take some time before man would get the idea – and the necessary ability – to change himself.

4. NIETZSCHE AND TRANSHUMANISM

To recapitulate, owing to the Age of Enlightenment, and the immense scientific and technological progress that followed, mankind has experienced a profound existential crisis. After all, did Nietzsche himself not proclaim, with great sorrow and lamentation, the death of God (Nietzsche, 1985, p. 12)? Did not the medieval ideals start withering? The humanity of

post-Enlightenment era seems to have dropped (invoking here Nietzsche once again): „something from the old homestead of belief of earlier times, the 'immortal soul' perhaps, or 'the old god' - ideas, in short, that led to a life that was better, more robust and serene, than the one our 'modern ideas' can lead to" (Nietzsche, 2008, pp. 11-12). Nietzsche has certainly understood how much the concept of deity meant not only to Christian European civilization – but to *every* civilization present on the planet. The essence of religious anthropology is our understanding of the *homo religiosus* – that is, the inherent drive to religion in its myriad forms, present within humanity from the dawn of civilization (DuBose, 2014, p. 827). Enlightenment has severed that connection somewhat, and religion ceased to be a valid source for all moral. What was there do to then? Who will assume God's place as the source of all morality? The Overman (*Übermensch*), Nietzsche says. „I teach you the overman. *Man is something that shall be overcome* [emphasis mine]. What have you done to overcome him?" (Nietzsche, 1985, p. 12). The legacy of the Enlighenment lives on today – for example, our attitude towards knowledge, the rational, and the individual and his own reasons has changed very little (Goldmann, 1968, p. 2), however, to Tilich, anxiety about spiritual nonbeing became dominant (Tilich, 1980, p. 60). It would seem that Nietzsche's ideas aptly fit into the transhumanist *Weltanschauung*, however, Bostrom, one of the most prominent transhumanists of this day and age, believes that the similarities between Nietzsche's philosophy and transhumanism are only superficial, and that the transhumanism of today is more similar to the philosophy of John Stuart Mill (Bostrom, 2005a, p. 4). However, the word „posthuman" (similar and often interchangeably used, if not completely synonymous with „transhuman") can be interpreted in a multitude of ways. In Bostrom's view, a posthuman is „a being that has at least one posthuman capacity. By a posthuman capacity, I mean a general central capacity greatly exceeding the maximum attainable by any current human being without recourse to new technological means" (Bostrom, 2006, p. 1). Even thought the methods of improving upon humanity are different when it comes to Nietzsche and Bostrom, the final goal is the same: and that is transcending what it means to be human, which both Nietzsche and Bostrom, More and various other transhumanists see as being closely associated with suffering and limitations.

Table 2: A comparison between the philosophical system of Friedrich Nietzsche and transhumanist thought		
	Nietzsche	**Transhumanism**
To be human is:	To become what one wants to be (Nietzsche, 1986, p. 44); without meaning (*Ibid*, 1985, p. 20), absence of a goal, and lacking (*Ibid*, p. 60); something to be overcome (*Ibid*, p. 12, 310), an overture to the Overman (*Ibid*, p. 287).	To dream of immortality (Tirosh-Samuelson and Hurlbut, 2016, p. 4), to attempt to overcome the negatives of human existence, including human finitude (*Ibid*), to be a transitional stage between animal and posthuman (More, 2003).
Man must/should become:	Better and more evil (Nietzsche, 1985, p. 288); a forsaker of ideals (*Ibid*, 1986, p. 261); a creator in good and evil (*Ibid*, 2007, p. 89).	Enhanced, better in every way conceivable, with emphasis on overcoming human shortcomings via biotechnology (Humanity+, 2009).
The source of all values is:	Man himself (Nietzsche, 1982a, p. 136, 165); man's	The source of all truth, beauty, morality and purpose lies

		triumphant affirmation of oneself (Nietzsche, 1982b, p. 451).	within human nature (Huxley, 1927, p. 7-8). The general worldview among transhumanist is that this is due to mankind's position as the highest form of life (Derkx, 2000, p. 223). Secular humanist understanding of values such as human rights replaces sources of authority, such as the Church (Jotterand, 2020, p. 617-618).
	Enlightenment is:	The cult of reason and something that ought to be advanced (Nietzsche, 1982c, p. 84); a continuation of an aristocratic civilization (Garrard, 2008, p. 598). It represents a shift from a God-oriented paradigm, to a man- oriented one (Allison, 2001, p. 96)	The historic root of Transhumanism – a period when man started waking up from religious "otherworldliness" (Cady, 2011, p. 87). Transhumanism is the ideological descendant of the Enlightenment (Hughes, 2010, p. 622).
is:	**The essence of philosophy**	To seek out the questionable and the alien, unhindered by morality (Nietzsche, 2007, p. 4).	The radical biotechnological enhancement of the human being (Agatonović, 2018, p. 430).
	The importance of reason:	Reason made Europe what it is − this is what Europe owes to the Greeks (Nietzsche, 1986, p. 162);	Transhumanism's focal ideological point is reason itself. Transhumanism embraces and amplifies this central tenet of the Enlightenment (Merlo, 2019, p. 45).
	To overcome man, humanity must:	Will the Overman into existence (Nietzsche, 1931, p. 43); revel in conflict and strife (Nietzsche, 1982d, p. 97).	Rely on empirical observations, reason and the scientific method, in the vein of Francis Bacon's "Novum Organum" (Bacon, 1902), rather than religious authority (Hughes, 2004, p. 157).
	On humanity's progress:	Life continually overcomes itself (Nietzsche, 1985, p. 101, 227) and strives to something greater than itself (*Ibid*, p. 227).	The biological progress that led to the awakening of consciousness in humanity is merely an overture to the progress that humanity will achieve under the guidance of its own reason (Phillips, 2007, p. 617). Transhumanism is also considered to be an ideology of extreme progress (Tirosh-Samuelson, 2011b, p. 55).

On evolution:	Mankind of Nietzsche's age, as Nietzsche himself saw it (Nietzsche, 1931, p. 44), was not an evolutionary link that led to something higher. Nietzsche saw man as something much lesser than man could actually become. He saw them as closer to animals than the Overman (*Ibid*, p. 59). Mankind needs to evolve to new ideals - well-being, power, beauty (*Ibid*, p. 80).	It has been an inescapable fact of existence, but only recently has man started to gain control over the evolutionary process of his own species (Huxley, 1968, p. 74). The *Robo Sapiens* is simply a continuation of the *Homo Sapiens* (Tirosh-Samuelson, 2011a, p. 10-11), and the posthuman entities of tomorrow could be considered the progeny of today's humanity (Goffman and Cornell, 2015, p. 134).
The otherworldly/spiritual:	It is a denial of life – Nietzsche considered it almost synonymous with "extinction" (Nietzsche, 1931, p. 48).	Is a reactive concept, defined in terms of what physical life is not (More, 1993, p. 15), strips the physical world of worth and significance (*Ibid*).
On religion:	Religions allow insight, but also veil the horrors of existence (Burnham, 2015, p. 153).	While it did have a necessary and positive role (More, 1990, p. 6), transhumanism either is clearly a non-religious movement (Humanity+, 2020), with some authors rejecting faith and dogma altogether (More, 1992, p. 6).

The table above shows that, although Nietzsche himself could not have in any capacity anticipated the exponential rise of biotechnology, biomedicine, nanorobotics and the like, he and the transhumanists of the 21st century share a single, unified goal – overcoming that which is human for the sake of something greated, better, or – dare one say it – improved. While the superiority of the Nietzschean Overman is natural (Diethe, 2007, p. 251), the superiority of the post-human is generated through aritificial means. Both Nietzsche and transhumanism retain a positive outlook on the Enlightenment, and both seek to remake man according to values that they choose (Vaccari, 2015, p. 23), the difference being only methodological. Del Val and Sorgner (2011), in a document called "Metahumanist Manifesto", note that "metahuman" is essentially an umbrella term covering various forms of modifications and/or improvements upon the human genome – which would, by extension, also include Nietzsche's Overman, even though Nietzsche himself never gave any practical guidelines on how to will the Overman into existence. In another instance, Sorgner (2009) postulates that transhumanism of today would have had Nietzsche's support, and Sorgner's argument rests on two premises: that Nietzsche wholeheartedly supported science as a means of achieving more power – which was, in Nietzsche's view, mankind's way to happiness (Nietzsche, 1931, p. 42-43) – and that man's overcoming of his own nature was his own enhancement. Even if one assumes that to be true, however, the means to overcoming man vastly differ. Like the transhumanists, Nietzsche did believe that that the human – including his body – was in a constant state of becoming. In the second half of the 19th century, Nietzsche brought to light the presence of the philosophical thought of Heraclitus, including his view of becoming, the idea that the world was a grand spectacle of cosmic transformation, an "...everlasting wavebeat and rhythm of rhythm of

things" (Nietzsche, 1962, p. 50). The underlying idea that reality is in a constant flux of change without a beginning, end or any sort of cessation (Small, 2013, p. 631). The struggle for evolution of the Overman, of a better being, reminds of an upward spiral, an endless feedback loop, which combines Nietzsche's two of Nietzsche's ideas: the Will to Power and the Eternal Recurrence (Howard, 1992, p. vi). According to Sorgner (2007), Nietzsche maintained that the human body was not entirely physical – that *everything* is the will to power made manifest in the observable universe (p. 34). Transhumanists, for the most part, understand divinity from Feuerbach's standpoint (adopted, to a certain extent, by Nietzsche as well) – as a product of human abstraction, residing entirely within the human mind (Feuerbach, 1855, p. 58-59), and, according to Marx (1998), even outwardly projected from therein into society (p. 573) – and so ddid Nietzsche, of course, adhere to the worldview of secular humanism, however, Nietzsche's theothanatology, although it emphasized the need of humanity to mature and overcome it's limitations, it never offered any ideas of salvation in the same vein that transhumanism does (Graham, 2002, p. 76), and it certainly hasn't painted a picture of salvation through technology. Even though notable transhumanists, such as More (2010) insist that tranhumanism, by default, *must* be Nietzschean, Kaufmann (2013) notes that Nietzsche's conception of the Overman, as laid out in posthumously published Ecce Homo (Nietzsche, 2005, p. 147), came in a "Darwin-conscious age" (p. 8), even though Nietzsche himself – like his contemporary Strauss (1873) – was quite critical of Darwinism (Atterton, 2020, p. 417; Wilson, 2013, p. 354). While some transhumanist thinkers, such as Sorgner (2009) are quick to embrace the theory that Nietzsche would, had he been alive, give the transhumanism movement of today his full support, there are gravid implications which point otherwise. Hauskeller (2010) points out that: a) Nietzsche did not consider happiness better than suffering – humans were creatures of tragedy, first and foremost (Nietzsche, 1999, p. 22) – and this goes directly against the very core of transhumanist ideals; b) While transhumanists have a system of core and derivative values (Bostrom, 2005b), Nietzsche gave Zarathustra the epithet "destroyer of morality" (Nietzsche, 2007, p. 37), and considered himself an immoralist, a destroyer of values; c) Nietzsche never states or even implies that the Overman is biologically superior to the man of today – he is not "better", simply more "profound" (Ansell-Pearon, 1992, p. 325). Transhumanism focuses on the clear idea what a Homo Sapiens *is*, and what a Homo Sapiens *ought to be*, and is, at it's core, essentialist, for transhumanism seek, unlike Nietzscheanism, to realize "same, unequivocal humanist values, goals, and ideals", which makes the trans- and posthuman an idealist "superhumanist" (Aydin, 2017, p. 316).

4. EVOLUTIONARY HUMANISM AND TRANSHUMANISM IN THE 21st CENTURY

If we are to assume that Renaissance and post-renaissance humanism and transhumanism to be one and the same, or at the very least, to stem from the same root, we will come to a conclusion that there are two main phases of transhumanist thought:

1. The "know yourself" phase – as encapsulated by the Delphic maxim "γνῶθι σεαυτόν" is the period when there was no transhumanism to speak of. It begins at the dawn of civilization and ends with after World War Two. Transhumanist thought did exist, as did rationalism and humanism. It was in this period that the seeds of transhumanism were sown. Yet, only with sufficiently advanced technology could transhumanism as we know it today appear.

2. In the second phase, which started off after World War Two and lasts to this day, humanity has experienced unforeseen advancement. We are now at an age where: brain-machine interfaces, while still in early stages of development, have helped restore mobility or give partial sight to blind patients (Shih *et al.*, 2012); nootropic drugs (supplements that increase cognitive performance) are being widely used (Suliman *et al.*, 2016), and so are artificial and/or bionic muscles (Bar-Cohen, 2005), gene editing and anti-aging technology (Mirkes, 2019, p. 116). Humanity has not only known itself – it has started to work on itself and continue itself.

The primary charge laid against transhumanism is that there will be nothing human left in the new *Robo Sapiens* to come. Another, more particular concern is that humanity has attempred to improve itself before, through the use of eugenics. As Koch warns:

"From Sir Frederick Galton, who coined the word eugenics in the 1980s, to the current crop of enhancement enthusiasts the assumption has been they knew, first, what traits are undesirable and second, how to remove them. The targets of these eugenic programs were "defectives," inferior examples of an otherwise progressive evolving species" (Koch, 2010, p. 687).

It is easy to see how an ideology that hails progress as the ultimate value easily runs down a moral slippery slope into eugenics. Transhumanists of the democratic variety may argue that enhancement will be on a voluntary basis, however, this begs the question in an instance of, for example, gene-editing of potential offspring. This act will also blur the line between human and machine. Even though our human bodies, imperfect as they are, commonly use rudimentary, yet refined technology to augment its abilities (for instance, the author of this paper wears glasses), these bodies are human beyond a shadow of doubr. Should transhumanism go to its logical conclusion, the line will be blurred even further. Transhumanists such as Hans Moravec and Raymond Kurzweil "promised eternal life in the nearby future by 'getting rid of the meat' and uploading human consciousness to computer networks. Th ese and many other examples indicate that advanced computer technology spawns its own eschatological beliefs about spiritual liberation and attainment of an immortal mind" (Houtman and Aupers, 2010, p. 19). From this perspective, transhumanism most certainly receives not only ideological, but also religious undertones. This, combined with transhumanism's utopian discourse, may strike as a warped image of various religious teachings: To quote Klichowski: "Transhumanists' attempts at crossing the point where the man finishes is nothing else but acting in line with the concept of the imperative to make the world a better place. The world of posthumans (quasi-perfect people) is a quasi-perfect world; it is a paradise where everyone lives like God" (Klichowski, 2015, p. 435).

5. A BRIEF INSIGHT INTO THE FUTURE OF TRANSHUMANISM

It is certain that transhumanism stems from European continental philosophy, and, in a sense, it represents use (from a critical standpoint, overuse) of the human faculty of reason. European philosophy has had its fair share of eschatologies and utopia, and it would not be undue to remind ourselves occassionally where such ideals lead – were not the gulags, after all, built on utopian dreamings? Since it is so solidly grounded in the philosophies of the Renaissance and the Enlightenment, transhumanism carries an aura of philosophical and scientific legitimacy which makes it quite attractive. This, coupled with the fact that optimism in regard to technology is much less often frustrated in comparison to, say, ideological optimism, given transhumanism a chance to become a widespread ideology in the near future. However, should

transhumanism deliver on its promises in regard to benefits it brings to manking, it will certainly gather ever more adherents. It already has its Apostles (Huxley, Moravec, Bostrom, Esfandiary and numerous others), as well as an eschatology, philosophical foundation, and a system of values, at least in regard to technology and human life. For these reasons, it may be concluded that at an uncertain point in the future, transhumanism is poised to become even more of a religious ideology than it is at the moment.

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Social Cognition and Depression in Nepal

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Abstract

Individuals suffering from depression tend to report markedly more negative social experiences in comparison to those who do not suffer from depression. This could be a result of their misinterpretation or misperception of other people and others' intentions in social settings. Previous research has detected a relationship between the progression of depressive symptoms and impaired social cognition. This paper explores this link between social cognition and depression and critically examines existing evidence. Based on a literature review, there is some evidence that individuals with impaired social cognition have a higher risk of developing depression. However, there is also other research indicating that the progression in depressive symptoms could impair social cognition in concerned individuals. While there does appear to be an association between depression and impairment in social cognition, research has yet to conclusively establish the causality and directionality between these two variables. This paper further aims to extrapolate the current findings to Nepali society by examining the limited extant research in this rarely studied population and proposing hypotheses for this context. Limitations, implications for policymakers and mental health practitioners, and future research are explored.

Keywords: cognitive functioning, depression, memory, Nepal, social cognition

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Social Cognition and Depression in Nepal

In everyday life, people often implicitly judge others' perspectives. This is done through the human ability to build, comprehend, and form internal schematic representations of their own and others' mental states (Morris et al., 2006). Social cognition refers to the cognitive processing involved in social interactions and how brains store, interpret, and apply knowledge about other individuals in the social environment (Park et. al, 2015). Social cognition plays an integral part in daily functioning as it enables humans to interpret social cues and behave appropriately in different social settings.

Genetics, the environment, and past experiences all play significant roles in the development of one's social cognitive abilities, but affective states also deeply affect social cognition (Cherry, 2020). Depression is an affective disorder that could have a negative effect on general cognitive and social functioning (e.g., deficits in the ability to read social cues; Zobel et al., 2010) which could consequently worsen the individual's symptoms of depression. Previous research has shown links between depression, cognitive impairment, and dysfunctional social behavior (Steger & Kashdan, 2009; Zobel et al., 2010). Depressive symptoms often include reduced interest, poor mood, low self-esteem and motivation, anhedonia, and psychosomatic symptoms that persist most days for at least two weeks and is likely triggered by a combination of factors including environmental, psychological, and genetic ones (American Psychiatric Association, 2013). Increased irritability, social withdrawal, memory and concentration issues, lower sex drive, and sleep disturbance are some of the adverse consequences of depression (National Institute of Mental Health, 2018).

The Effect of Depression on Social Cognition

People with depression report having more subjectively negative social interactions and tend to react more strongly to those interactions in comparison to people without depression (Weightman et al., 2019). This could be a result of perceiving social stimuli differently from non-depressed individuals as depressed individuals tend to cognitively interpret emotions through a mood-congruent bias whereby they only remember information that is consistent with the particular mood they were in at a particular time (Weightman et al., 2014). This diminished ability to interpret the socio-emotional stimuli correctly could possibly be because of the impairment in memory which occurs as a result of depression (Burt et al., 1995).

Human memory, in general, is reconstructive in nature and often incomplete, recalling only important pieces (Bartlett, 1995). In the absence of all information, we tend to fill in these gaps using our schemas. As a result of this, memories are never fully accurate, but rather specific traces are encoded at the time of experience and then, on recall, previous knowledge, expectations, beliefs, and experiences fill in information that is congruent with one's schema (Bartlett, 1920). This reconstructive nature of memory, especially when coupled with the bias towards negative emotions and negative schema formation that individuals suffering from depression tend to have, can be detrimental. Indeed, a meta-analytic study investigating the effect of depression on memory indicates that memory impairments, especially those involved in the recall of positive experiences, are very common in depressed individuals (Burt et al., 1995). As a result, depressed individuals have more problems in retrieval than others, and they resort to filling in memory gaps with negative schemas. Subsequently, even in recovery, having a biased propensity for negative feelings persists in individuals with depression (Weightman et al., 2019).

Thus, from the above literature it can be inferred that, as a result of their bias towards negative emotions, depressed individuals remember information associated with negative

mood (rather than the whole experience) with more intensity and use this for their schema to fill in memory gaps. This creates more negative memories, thoughts, and feelings, further aggravating their condition. Furthermore, social cognitive functioning tends to get worse as depression levels increase (Weightman et al., 2019).

Depression as a Social Being

Withdrawal from social situations and activities is among one of the more noticeable effects of depression. This applies even among friend circles: people with depression tend to socialize less with friends than those without depression (Brown et al., 2011). This could be because of their aversion to rejection coupled with a diminished ability to enjoy communicating and cooperating with others (Pugovkina & Palamarchuk, 2013). Social withdrawal can lead to the development of more symptoms as isolation can result in missing out on the potential benefits of emotional support from strong friendships. Depressed individuals' condition may be exacerbated by their tendency to seek comfort in others similar to them; even among the limited social interactions they have, it is mostly with individuals who also tend to struggle with depressive symptoms (Elmer & Stadtfeld, 2020). Even worse, the depressive symptoms of one's peers may be "contagious" (Zalk, 2010). Such patterns consistent with the old adage of "misery loves company" may increase someone with depression's exposure to "dysfunctional attitudes and thus being socially influenced to develop more depressive symptoms" (Elmer & Stadtfeld, 2020, Discussion, para. 2). These dysfunctional patterns of interactions are also usually limited to occurring in dyads rather than in groups. Those with more severe depression interact in smaller groups and spend proportionally less time in groups, preferring one-on-one encounters (Elmer & Stadtfeld, 2020). This kind of behavior may also result in further isolation of the depressed pair as they tend to engage less with others in a group environment (Elmer & Stadtfeld, 2020).

The above-mentioned findings help demonstrate that the social impairment experienced during depression further aggravates its symptoms. However, other evidence shows that a deficit in social cognition can increase the risk of affective spectrum disorders like depression (Pugovkina, 2014). Thus, the causality of this relationship remains yet to be established and supported by clear evidence.

In the Context of Nepal

Despite being highly prevalent and a major public health issue, the topic of depression and other mental health issues remains taboo in Nepal (Risal et al., 2016). This could be because Nepali society tries to hide mental health issues to save face—someone suffering from mental health issues is considered to bring shame, disgrace, and disapproval upon the family (Regmi et al., 2009). As a result, there is a very noticeable stigma surrounding the issue of mental health in general (Regmi et al., 2009), making research and treatment in this domain particularly difficult. There are still large gaps in the psychological literature in regard to Nepal. Since the 1950s when Nepal saw the beginning of research in psychology, very few topics have been explored (Maharjan, 2012), leaving the rest unexamined. So far, research conducted in the field of psychology has been limited and includes education and school psychology, psychological impacts of sex-trafficking, psychological effects of the civil war 1996-2006, cross-cultural comparisons, developmental psychology, and psychology in relation to linguistics and spirituality (Maharjan, 2012). To date, psychology research has failed to address the psychopathology prevalent in Nepali society. Most of the research has been on neurotypical and high-functioning members of society; and even the few studies conducted on mental health have been done from a psychiatric rather than holistic perspective

(Maharjan, 2012). There has also been no empirical research on the effect of depression on social cognition in the context of Nepali society as evidenced by an Academic Search Premier search (including PsycINFO among multiple other databases) conducted on February 2, 2021 by the current authors. Therefore, the statements below are based somewhat on the limited extant research but also on primary data based on the personal experience of the first author, a Nepali person who grew up in Nepal.

Depression remains hidden behind the masks of "functional" people in Nepal. The prevalence of individuals demonstrating clear symptoms of social and especially cognitive impairments of depression is very high in the Nepali society, and yet many have never sought any professional consultation or a diagnosis (Jack et al., 2010). This is likely because of the cultural emphasis placed on saving one's family's "face"—a factor which being labelled with a mental disorder compromises the family's honor (Regmi et al., 2009); as a result, people generally do not open up about mental health struggles through "self-silencing," likely leading to worsening of symptoms such as depression (Jack et al., 2010). This is supported by a study conducted among the Nepali population which demonstrated that the acceptance of more Western values generally has resulted in them reporting less depression while those who retain more traditional values were more depressed (Furr, 2005). These results may be related to the younger generation being more open about their mental health issues as they are often the ones that more readily adopt Western values, while the older generation often remains more traditional and still tends to view depression as mere sadness that one needs to get over.

"You CAN'T be depressed. Focus on your studies and career" is something that is likely to be heard regularly in Nepal. This kind of mentality comes about as a result of a lack of research, mental health awareness, practitioners, regulations, legislature, infrastructures, and institutions which can provide resources and support to people in need (Regmi et al., 2009). Nepal lacks sufficient practitioners and researchers with adequate training and background in mental health (Regmi et al., 2009). Similarly, very little (recent estimates of between 0.17% and about 1%) of the national health budget is allocated for mental health (Regmi et al., 2009; World Health Organization, 2007) which certainly has significant limiting effects on further progress in the field.

Proposed Hypotheses

Based on the limited research and firsthand lived experience of the first author, the following hypotheses are put forward in regard to how social cognition might influence depression in a Nepali context. With mental health struggles being highly stigmatized in Nepali society (Regmi et al., 2009), someone with depression is predicted to face more social isolation than those in some other countries which lends to the rapid progression of depressive symptoms. The lack of mental health awareness, psychotherapy services, and accessibility of psychotropic medication is also hypothesized to contribute to the difficulties faced by someone with socio-cognitive impairment related to depression. While the actual causative directions still need to be confirmed, much like any other culture, it is predicted that for Nepali people there will likely be a bidirectional relationship whereby social cognitive processes lend to further depressive symptoms while the symptoms themselves will negatively affect social cognitive processes in a vicious cycle. Such a destructive pattern is predicted to have catastrophic long-term effects on Nepali society.

Discussion

      Based on the literature to date, the knowledge regarding the relationship between social cognition and depression can have several implications, especially in a counseling setting. These findings provide a resource for those suffering from mood affective disorders and impairment in social cognition to help make sense of what they are going through. Treatment should address social cognitive deficits (Knight & Baune, 2019). Since social connections can decrease depression (Lin & Ensel, 1999), treatment can be tailored to focusing on the importance of social support while encouraging clients to engage in group therapy and support groups. Addressing the stigma associated with mental health in Nepal will be necessary as this could be a barrier to someone with depression seeking the recommended social support and treatment that could potentially ease their depressive symptoms.

      This paper has obvious limitations in that it is based on a limited literature review of only English sources and did not collect any primary data. The extant literature to date about social cognition and depression has also been largely with Euro-American samples and lacks generalizability as the findings might not be applicable to Nepali society. Thus, further empirical research with many different diverse groups in Nepal is recommended, including quantitative and qualitative longitudinal studies, in order to test the hypotheses proposed above. Lastly, policymakers and program developers in Nepal should take into account the potential adverse consequences on society from depression and its relationship with social cognition when drafting mental health policies and developing programs and should make it a national "health-care priority" (Risal, 2016, p. 1). This paper furthers Regmi et al.'s (2009) call for "the provision of adequate manpower, spreading the services across the country, increasing public awareness and formulating and implementing an adequate policy" (abstract) when it comes to mental health in general and depression in particular in Nepal.

Conclusion

      While mood affective disorders impair social cognition in individuals, impairment in social cognition can also contribute as a risk factor for affective spectrum disorders like depression. The relationship between social cognition and depression could be a cyclical one, but there has not been sufficient evidence confirm this theory. Findings to date have established a relationship between depression and social cognition, but because of the lack of empirical evidence, the causality of this relationship has not yet been determined. This relationship has also never been explored in a Nepali context. Further research is required to explore these relationships. The results of such research could have potential benefits for Nepali people suffering from depression and possibly society at large.

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Exploring The Link Between Self-Compassion And Cognitive Reserve

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ABSTRACT

Background
Cognitive reserve is typically associated with psychopathologies. However, little is known about the relationship between positive psychological constructs and cognitive reserve. This study is on the frontier of cognitive psychology and positive psychology which seeks to establish a link between these two fields.

Objective.
To investigate the link between cognitive reserve and self-compassion. We hypothesized that there would be a positive correlation between self-compassion and cognitive reserve.

Design
A correlation research design.

Setting and Participants
The voluntary sample were 83 healthy Indian adults ranging from 21-65, of which 49 were females and 34 were males.

Methods
The scales were administered online adhering to the covid-19 guidelines of minimum social contact. Cognitive reserve was measured using Cognitive Reserve Index questionnaire (CRIq) and Self compassion was measured using the 26 item Self -Compassion Scale. The relation of self-compassion to cognitive reserve was modelled using Pearson's correlation.

Results
The Pearson correlation coefficient r for self-compassion and cognitive reserve was 0.267* which was significant at 0.05 level. We also tested for social desirability using the Marlowe-Crowne Scale (Reynolds's Form C). The coefficient r for the constructs were reported as the following:
Self-compassion and social desirability (r=0.317** significant at 0.01 level). Cognitive reserve and age (r=0.636**). The correlation between cognitive reserve and social desirability (r=0.176) was not significant, which shows that social desirability bias did not play a large role in the scoring of CRIq.

Conclusion
According to our empirical data, since there is a positive significant correlation between self-compassion and cognitive reserve, we infer that these constructs could be studied further.

KEYWORDS: Self-compassion, Cognitive Reserve, Healthy Adults, Positive Psychology.

Introduction

Cognitive health is the ability to clearly think, learn, and remember which is an important component of performing everyday activities. It is just one aspect of overall brain health. (*Cognitive Health and Older Adults*, n.d.)

Cognitive reserve is commonly seen in the context of cognitive decline, which is typically associated with psycho-pathologies like depression and anxiety, which have been often seen as risk factors for cognitive decline and brain disorders like dementia, Alzheimer's, etc. Self-compassion has found to yield many benefits, such as reducing negative psychological factors and ultimately helping overall well-being. Moreover, self-compassion is also known to be a buffer against many negative psychological and physical outcomes. Little is known about the relationship between positive psychological constructs and cognitive reserve. This study is on the frontier of cognitive psychology and positive psychology which seeks to establish a link between these two fields. While there are many contributing factors to the development of brain diseases, till today, there is no clear cause and effect which has been found out for the occurrence of the diseases. This opens a window of possibilities for many such factors to play an important role in the person, prior to being diagnosed with neurocognitive illnesses and even during the diagnosis. Among the many factors, an extremely important one, is the concept of cognitive reserve.

No major population-based research has yet explored the relationship between cognitive reserve and self-compassion, to our knowledge. The purpose of the present study, therefore, was to investigate whether better cognitive reserve is correlated with high levels of self-compassion.

Definitions

Self-compassion

Self-compassion is simply compassion directed inward, relating to ourselves as the object of care and concern when faced with the experience of suffering (Neff, 2003a). Self-compassion incorporates three components and their opposites: self-kindness (being kind and supportive towards ourselves when confronted with personal failures and inadequacies) versus self-criticism; common humanity (understand our failures as part of human life) versus isolation; and mindfulness (being aware of the present moment, without avoiding it) versus over-identification.

Cognitive Reserve

Cognitive reserve is the ability to optimize and maximize performance through two mechanisms; recruitment of brain networks and/or compensation by alternative cognitive strategies (Nucci, n.d.).

Hypothesis

H0 - There is no correlation between self-compassion and cognitive reserve

H1 - There is a positive correlation between self-compassion and cognitive reserve

Review of Literature

Nucci (n.d.) explained the concept of reserve which has been used to differentiate between individuals in their capacity to cope with or compensate for pathology. Brain Reserve (BR) refers to structural aspects of the brain, such as brain size and synapse count. Cognitive Reserve (CR), on the other hand, is the ability to optimize and maximize performance through two mechanisms: recruitment of brain networks, and/or compensation by alternative cognitive strategies. Brain reserve was also synonymously used with brain's resilience which is the capability of the brain to cope with brain damage. A closely related theory is the brain reserve hypothesis which is a passive quantitative model that relates to individual differences.

The definition of CR was introduced and developed through debate on BR and ageing; a fascinating idea on the basis of brain plasticity. The cognitive reserve hypothesis suggests that, by using pre-existing cognitive mechanisms or enlisting compensatory strategies, the brain actively tries to cope with trauma. Thus, individuals with high CR can tolerate more age-related changes and disease-related pathologies via effectiveness. So far, through extremely heterogeneous methods and proxies, CR has been calculated.
One of the first and most widely used studies in CR is schooling. In normal ageing and in degenerative disorders or traumatic brain injury, schooling plays a role in cognitive decline. It is also acknowledged that schooling has an impact on the lifestyles of adults. In some cases, the proxy is generally indicated by the number of years of schooling (or degree of literacy) on an ordinary scale and in others by a numerical one. Several studies have shown that occupation can provide an additional and independent source of CR during the lifetime of an individual. Typically, the last (or the longest) task is taken into account. According to the cognitive load involved, occupation has a distinct value. There are also common measures of perceived reputation and/or salary A separate or synergistic increase in CR may also be provided by involvement in leisure activities. Typically, intellectual, social and physical behaviours are taken into account. Several events were documented using methods that used different types and numbers of objects, target times and frequencies. Intelligence is another commonly used CR index in which the most common proxies used to estimate CR are I.Q. or premorbid I.Q. Maintaining cognitive capacity has become a target to pursue as human life expectancy rises. A mixture of educational and occupational satisfaction, leisure activities and the biological ageing process itself may seem to be the indicator of how cognitive performance can be developed as we age.

There has been a growing interest in figuring out in recent decades because some older adults are able to improve output on cognitive tasks by hiring different brain systems and/or using alternative cognitive techniques compared to people with lower CR. It has also been shown in recent decades that age does not affect cognitive functions in the same way, nor do they develop over life at the same rate. Processing speed is one of the cognitive capabilities that declines most steadily with age.
An active cognitive lifestyle, which includes engaging in cognitively stimulating activities, may achieve CR. Intellectual, emotional, physical or recreational behaviours lead to delaying or minimising brain damage-related symptoms and reducing the risk of dementia. The methodological methods used in CR research, such as the Cognitive Activities Scale, or Lifetime of Experiences Questionnaire, have influenced the development of the Cognitive Reserve Questionnaire, Cognitive Reserve Index Questionnaire and Cognitive Reserve Scale (CRS)
Cognitive reserve is regarded as an important term that is essential to understanding cognitive health. It can be thought of as the potential of the brain to improvise and find alternative ways

to get a job done. The brain will adjust the way it works, much like a strong vehicle that allows you to engage another gear and suddenly accelerate to escape an obstacle, and thereby make additional resources available to deal with obstacles. A lifetime of education and curiosity builds cognitive reserve to help the brain cope better with any mistakes or declines it faces. The idea of cognitive reserve emerged in the late 1980s, when researchers identified people who were nonetheless discovered at autopsy to have brain changes associated with advanced Alzheimer's disease with no clear symptoms of dementia.

Although they were alive, these people did not display signs of the disease because they had a large enough cognitive reserve to compensate for the damage and continue to function as normal.

Since then, study has shown that people with a higher cognitive reserve are more able to prevent signs of dementia-related degenerative brain changes or other brain disorders, such as Parkinson's disease, multiple sclerosis, or a stroke. If you're subjected to unexpected life events, such as stress, surgery, or contaminants in the environment, a more powerful cognitive reserve will also help you perform better for longer. Such conditions require extra effort from your brain, equivalent to needing another gear to be engaged by a vehicle.

Research from STERN (2002, p. 454) showed that the empirical observations have prompted the researchers to make two models of reserve. This subdivision of reserve models describes the process in context of active or passive participation of the brain to cope up with the pathology. In passive models, cognitive reserve is classified on the basis of damage that can be sustained before arriving at a threshold for clinical expression. In active models, cognitive reserve is defined in terms of how the task is processed. These subdivisions are not mutually exclusive.

Passive models of reserve assumes that there is a fixed limit of threshold at which the impairment starts for everyone. Such as, in the case of Alzheimer's disease, the threshold might be a reduction in the number of synapses to the point where only a few of them remain. These models are also quantitative in nature, that means the specific type of brain damage will have the same effect on each person, as each individual has different brain capacity but the brain damage will either be sufficient or insufficient to exhaust brain cognitive capacity to alarming levels. The model does not cover the cognitive or functional processes that occur due to the disruption caused by brain damage. It also has a major limitation of not exploring the potential of qualitative differences between different types of brain damage. Although, this model potentially explains the phenomenon but this model is not sufficient to explain all the domains of cognitive reserve. The active models state that the brain compensates for brain damage. It also has two different types of sub models; they are cognitive reserve and compensation. Cognitive reserve takes the form by using brain networks or cognitive paradigms that avoid disruption. This type of reserve is believed to be used by healthy individuals to cope with the demands of any task. Compensation is a process in which the brain structures or networks which are not frequently used by the individuals is put to use to compensate for brain damage.

Cognitive reserve matches with the idea of brain reserve in the lines of potential mechanism when it comes to coping with any brain damage. In the threshold model, the reserve capacity generally comprises extra neurotransmitters or an expanded number of repetitive neuronal networks. Cognitive reserve zeros in addition to the "software". This could comprise of the cognitive paradigm underlying a task to support disruption and still work viably. On the other hand, this could consist of the capacity to utilize substitute ideal models to move toward an issue when the more standard methodology is not, at this point operational. The idea of

cognitive reserve gives a prepared clarification to why numerous studies have exhibited that higher levels of intelligence, and of education and occupational attainment are acceptable indicators of which people can support themselves against any brain damage prior to showing functional deficit. Instead of stating that these individual's brains are terribly anatomically not quite the same as those with less reserve (e.g., they have more neurotransmitters), the cognitive reserve speculation sets that they process tasks in a more proficient way. The cognitive reserve model additionally doesn't accept that a particular kind of brain damage will have a similar impact on every individual. As a result of individual variability in how they adapt to brain damage, a similar measure of damage will affect various individuals, regardless of whether brain reserve capacity is held consistent. Cognitive reserve is typically been researched in the context of understanding cognitive decline seen in brain disorders like Alzheimer's'. David A. Bennett conducted a study which found that social isolation, depression, neuroticism, and other social traits are risk factors for Alzheimer's and other forms of dementia. Moreover, these psychopathologies are not just seen in brain disorders but also in patients with mild cognitive impairment. Psychological factors like depression, anxiety, and apathy are common in mild cognitive impairment and represent possible risk factors for cognitive decline and progression to dementia. People with high CR would be more effective at adapting to a similar amount of brain damage than those with low CR. In this situation, brain function instead of brain size is the significant variable. This trademark distinguishes the CR model from the brain reserve model in which reserve uses from brain size or neuronal count. Epidemiological investigations have assisted with forming our comprehension understanding of cognitive reserve and the individual explicit factors which seem to improve reserve. Numerous studies have exhibited the benefits of education, occupation, leisure, and intellectual ability on dementia incidence.

The child developmental literature recommends that not exclusively do individuals with higher IQ have bigger brain volume but that intellectually invigorating parts of life experience may likewise be related with expanded brain volume. It is likewise now evident that stimulating conditions and exercise advance neurogenesis in the dentate gyrus. Both exercise and cognitive stimulation control factors that expand neuronal versatility, (for example, brain determined neurotrophic factor) and protection from cell death. At last, there is some proof to recommend that environmental enrichment may act straightforwardly to forestall or moderate the accumulation of AD pathology.

In entirety, there are proofs that experiences which provide cognitive reserve reflect not only cognitive advantage but also structural advantage. In this manner, brain reserve and cognitive reserve ideas are not totally unrelated, and all things considered, both are associated with giving reserve against brain damage. A total model of cognitive reserve should coordinate the intricate associations between genetics, the environmental factors on brain reserve and pathology, and the capacity to effectively make up for the impacts of pathology. (Handbook on the Neuropsychology of Aging and Dementia | SpringerLink, n.d.)

In research from Llewellyn et al. (2008a, p. 686) Ostir and colleagues found that positive affect seems to secure against occurrence of stroke across a 6-year time frame, in any event, when depression levels were controlled for. Essentially, Pitkala and associates found that a positive life orientation (optimism) anticipated low rates of both mortality and institutionalisation across a 10-year time period. Psychological well-being may lessen pressure by improving mental assets, and increment neural proficiency. There is also a trial proof to propose that promoting positive temperament states impacts cognitive execution

over brief periods, and it is possible that significant degrees of psychological well-being are helpful for cognitive function throughout longer spans.

Psychological wellbeing might be related with levels of cognitive function through various pathways. Keltner and Bonanno saw that positive affect, as estimated by genuine laughing and smiling, anticipated the versatile reaction to stress in deprived grown-ups. Steptoe and colleagues found that positive affect in middle aged grown-ups is related with decreased neuroendocrine, inflammatory and cardiovascular activity. Psychological well-being may help to keep up cognitive function by securing against chronic stress. It may make socializing, intellectual and proactive tasks more probable, which may thus impact neural efficiency and levels of cognitive function. This thought is predictable with the environmental complexity hypothesis which proposes that the commitment in an active lifestyle may result in practically more productive neural networks that keep up cognitive function and protect against dementia. Then again, the commitment in neuroprotective exercises may likewise bring about more significant levels of psychological well-being. Also, diminished levels of cognitive function may prompt lower levels of psychological well-being. Although cognitive reserve is talked about frequently with regards to Alzheimer's disease and typical age, it has likewise been shown to give advantage in vascular injury, Parkinson's disease, traumatic brain injury, HIV, and multiple sclerosis. (Cognitive Reserve and the Aging Brain. (n.d.).

As we know, the mind/psyche influences the body in many ways. One very common example of this is a psychosomatic disorder which involves both, the mind and the body. Some physical diseases are thought to be particularly prone to being made worse by mental factors such as stress and anxiety.
With this information available, brain diseases/cognitive decline for some people but not all could exhibit some psychological differences within them. One such factor we wanted to explore was self-compassion. For example, in one study, (Dewsaran-van der Ven et al., 2018, p. 37) it was found that there were lower levels of self-compassion in patients with somatoform disorder and its association with more physical symptoms and lower health-related quality of life, indicate that self-compassion is a potential clinically relevant factor that may influence therapy outcome and that can be a therapeutic target in patients with somatoform disorder.There has been a research study done by the Alzheimer's drug discovery foundation on Alzheimer's' patients and anxiety, depression, which shows that there are many psychological factors that play into the development of gradual cognitive decline. Since there is no clear cause, it is essential to explore this area, with correlations before we can draw conclusions for causations and experiments.
Self-compassion may have many consequences and effects on physical health as a psychological construct. The importance of self-compassion in chronic pain has been confirmed by a number of studies, (Breines et al., 2014, p. 110). The following pain-related results were associated with cross-sectional studies on chronic pain, self-compassion: poorer functioning and greater catastrophic pain, as well as greater acceptance of pain and lower anxiety associated with pain.

Moreover, in a study done on Japanese undergraduates, (Chishima et al., 2018, p. 1913) self-compassion promoted adaptive coping via reduced threat toward and greater controllability of the stressful event. The current study provides additional evidence that cognitive appraisals (threat and controllability) could mediate the influence of self-compassion in stress coping processes.

Another paper that has thrown light on cognitive functions in the context of positive psychological variables is a research from Llewellyn et al. (2008, p. 686) that found that in a community living adult, higher levels of psychological well-being were linked with better cognitive function.

Self-compassion has many benefits, including lower levels of anxiety and depression. People who are self-compassionate recognize when they are suffering and choose to be kind to themselves at these times, which reduces their anxiety and related depression. Moreover, (Chishima et al., 2018, p. 1913) self-compassion promotes adaptive coping via reduced threat toward and greater controllability of the stressful event. The current study provides additional evidence that cognitive appraisals (threat and controllability) could mediate the influence of self-compassion in stress coping processes. Self-kindness also seems to significantly predict all dimensions of positive mental health (Shin & Lim, 2018, p. 802). Over-Identification also contributed significantly to emotional well-being, common humanity to social well-being and psychological well-being isolation. Such findings indicate that self-kindness is a key predictor of positive mental health and that specific components of self-compassion in Koreans are strongly linked to specific dimensions of mental health. A research (Kim & Ko, 2018, p. 626) showed that self-compassion in older adults protects them from developing mental health and sleep disturbance symptoms while enhancing their life satisfaction, self-care, and usual activities. Therefore, interventions fostering self-compassion may benefit older adults' mental health and quality of life. A study by Sirois (2020) indicated that self-compassion was significantly associated with higher self-related health across the 26 samples. Another study (van der Donk et al., 2020, p. 893) suggests that mindfulness and self-compassion are human personal resources linked with psychological functioning, regardless of the presence or absence of stressful life experiences.

Additionally, (Marsh et al., 2017, p. 1013) self-compassion has been identified as a "buffer" against a range of negative psychological and physical health outcomes in adolescent populations. Self-compassion acts as a buffer between negative life experiences (such as victimisation) and poor psychological outcomes in disadvantaged youths (Játiva & Cerezo, 2014, p. 1189). Lau et al. (2020) conducted in Hong Kong during the pandemic, highlight the role of self-compassion not only buffers the perceived threats on well-being but also cultivates a general tendency to find benefits regardless of threats. Higher levels of compassion are usually associated with lower levels of mental health symptoms. This finding could provide empirical evidence for the importance of self-compassion for developing wellbeing, reducing depression and anxiety, and increasing resilience to stress

Edberg, F. (2020) did a study on Indian students researching self-compassion in the context of cognitive neuroscientific literature. The students were tested on many negative psychological variables and the findings suggest that there was a strong negative relationship between self-compassion and negative affect.

According to new research (Neff & Dahm, 2015, p. 125) self-compassion involves mindful attention to our negative thoughts and feelings so they are drawn closer with equilibrium and composure. At the point when we are mindful, we are experientially open to the truth of the current moment without judgment, evasion, or restraint. Mindfulness of our negative thoughts and emotions implies that we don't become "overidentified" with them, getting caught up and cleared away by our aversive reactions. Instead of confounding our negative self-concepts with our genuine selves, we can perceive that our thoughts and emotions are only that thoughts and sentiments assisting us with dropping our unquestioning confidence in the storyline of our insufficient, useless selves.

It is a metacognitive expertise including self-regulation of attention that develops a nature of identifying with one's involvement in an inquisitive, tolerating position. Acknowledgment includes being "experientially open" to whatever contemplations, feelings, and sensations emerge in mindfulness with a mentality of non-judgment and non-opposition. Both mindfulness and self-compassion are concepts drawn from Buddhist psychology and mindfulness is a core component of self-compassion.

Methodology

Design and Sample

The study made use of a correlational design, we used Pearson correlation coefficient to compute the data we received. The voluntary sample were 83 healthy Indian adults ranging from the age of 21 to 65, of which 49 were females and 34 were males.

Scales

Cognitive Reserve- We used Cognitive reserve index questionnaire (CRIq) to measure cognitive reserve. It was administered on a total of 588 participants, on an Italian population (323 women). Age ranges from 18 to 102). Participants were healthy without any neurological illness (Nucci, n.d.). The CRIq includes some demographic data (date, place of birth, gender, marital status) and 20 items grouped into three sections, education, working activity and leisure time, each of which returns a sub score. Therefore, all three sections of the questionnaire equally co-occurred to the CRI (reliability of CRIq α=0.62, 95% CI [0.56, 0.97]). The prediction was that, although the three sub scores were all proxies of the same construct (i.e., CR), the correlation between them would not be very high. Because of the lack of standardized questionnaires for estimating the CR, a concurrent validation of the CRIq could not easily be obtained. "Intelligence" is the construct which is most closely related to the CR (and was thus used as a predictive proxy in some studies). However, the CRI and IQ are not equivalent to each other. Thus, a perfect correlation between them is neither expected, nor desirable. In our sample, the correlation between CRI and two tests considered as being highly correlated with intelligence (Vocabulary tests from WAIS and TIB) was around 0.45

Self-compassion -The Self-Compassion Scale (SCS) was used to assess how people treated themselves in difficult times (Neff 2003a). It includes 26 items across six subscales: Self Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Overidentification. Items are rated on a 5- point Likert scale ranging from 1 (almost never) to 5 (almost always). Findings suggest that the SCS is a reliable tool in both clinical and non-clinical samples. Results supported a two-factor solution (self-compassionate attitude and self-critical attitude) with a moderate negative correlation between the two factors (r = !0.53). Both factors have good reliability (Cronbach's α = 0.91, for self-compassionate attitude; Cronbach's α = 0.89, for self-critical attitude)

Social desirability -We also tested social desirability as another factor since our data was self-report. We also wanted to see how it may affect scores on self-compassion. Socially desirable responding is the tendency of individuals to make themselves look good according to current cultural norms (Mick, 1996). One of the most used instruments for measuring social desirability is the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960). To administer the instrument, many short forms of MCSDS have been created over the years, and since some information indicates that some of the items contribute relatively

little to the overall scale (Strahan & Gerbasi, 1972). With 13 things, Marlowe-Crowne Social Desirability Type C shows a reasonable level of reliability. (TKR=.76).

Results

The Pearson correlation coefficient r for self-compassion and the cognitive reserve was r=0.267* significant at 0.05 level (Table1). We also tested for social desirability using the Marlowe-Crowne Scale (Reynolds's Form C). The coefficient r for the variables were reported as the following: (Table 2)
Self-compassion and social desirability (r=0.317** significant at 0.01 level), cognitive reserve and age (r=0.636**) .The correlation between cognitive reserve and social desirability (r=0.176) was not significant, which shows that social desirability bias did not play a large role in the scoring of CRIq.
We also saw a upward trend between the scores of age and cognitive reserve, which was r=0.636**

Table 1: Correlation between self-compassion and cognitive reserve

Correlations

		self_comp	criq
self_comp	Pearson Correlation	1	.267*
	Sig. (2-tailed)		.015
	N	83	83
criq	Pearson Correlation	.267*	1
	Sig. (2-tailed)	.015	
	N	83	83

*. Correlation is significant at the 0.05 level (2-tailed).

Table 2: Correlations between self-compassion, cognitive reserve, social desirability and age.

Correlations

		self_comp	criq	age	social
self_comp	Pearson Correlation	1	.267[*]	.180	.317[**]
	Sig. (2-tailed)		.015	.104	.003
	N	83	83	83	83
criq	Pearson Correlation	.267[*]	1	.636[**]	.176
	Sig. (2-tailed)	.015		.000	.112
	N	83	83	83	83
age	Pearson Correlation	.180	.636[**]	1	.336[**]
	Sig. (2-tailed)	.104	.000		.002
	N	83	83	83	83
social	Pearson Correlation	.317[**]	.176	.336[**]	1
	Sig. (2-tailed)	.003	.112	.002	
	N	83	83	83	83

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion

Since the Pearson correlation coefficient r for self-compassion and the cognitive reserve was r=0.267* significant at 0.05 level, we conclude that we reject our null hypothesis, thereby accepting that we observed a positive correlation. The findings have brought to our attention the inter-play between two variables of different sub-fields. This study could be a great contribution to inter-disciplinary research.

The correlation is positive and significant, but weak in nature. The reasons for this could be a small sample size and the measurement for cognitive reserve. According to our empirical data, since there is a positive significant correlation between self-compassion and cognitive reserve, we infer that self-compassion could play a positive role in cognitive reserve, and this role, although vague presently, could be explored further.

Although this research was done on a non-clinical sample, further studies could be done based on a clinical population, specifically on patients with mild to severe cognitive impairment. Moreover, making use of different designs, like experimental and quasi-experimental could be beneficial to control other extraneous factors, exploring the relationship in detail. According to research (Wells et al., 2019, p. 832), adults with mild cognitive impairment were able to learn mindfulness meditation, had improved self-efficacy and social engagement. Cognitive reserve may be enhanced through mindfulness mediation programs. For example, just like the construct of mindfulness has been explored in people who have faced cognitive impairment, self-compassion could also be studied in a similar way.

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THE DEVELOPMENT OF GOTONG-ROYONG GROUP PSYCHOTHERAPY FOR ENHANCE SELF ESTEEM OF VICTIMS BULLYING: INDONESIAN INDEGIOUNESS APPROACH

ABSTRACT
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This type of research was research and development (R&D) which aims to develop a model of psychological assistance to increase the self-esteem of adolescent victims of bullying, namely gotong-royong therapy. Gotong- royong therapy was integrates group intervention with multisystem based interventions. That was, the process of therapy has not only done in group settings but group members can also be involved in social settings, in this case the social system in the school. Gotong-royong therapy was developed by seven components modules, namely (1) the value of mutual cooperation consisting of 3 dimensions, namely corporation, deliberation and collectivist, (2) the value of social support that creates group empathies, (3) student understanding will be different (4) helping others values, community service and joint work, (5) principles of psychological therapy namely goal, obstacle, test and insight (6) self-efficacy motivation approach and (7) purposeful social interaction service to increase self-esteem. The seven components of the author operate into eight therapy sessions. The result showed that therapeutic significance is 0.00 which indicates that gotong-royong therapy was effective to improve the self-esteem of subjects who experience bullying. Future research is expected to test gotong- royong in various psychological problem settings, not only for victims of bullying.

Keyword: Gotong-royong Psychotherapy, Self-esteem, Victim of bullying

INTRODUCTION

Bullying is a serious problem among teenagers, especially in schools. The results of the World Survey show that Indonesia is the country with the second largest bullying after Japan (Kaman, 2013). Bullying has a negative impact, especially for victims. These impacts, among others, depression, self-withdrawal from the social environment, low self-esteem to suicide (Kodish, Herres, Shearer, Atte & Diamond, 2016). According to Olweus (1999) Victims of bullying behaviour usually have such criteria as not being incorporated in social groups, which are of social environment, individualistic as well as judged differently or weakly by other groups. So that individuals with these criteria can be targeted for bullying perpetrators. While Hong, Lee, Lee, Lee and Garbarino (2013) explained that the characteristic of the victims of bullying behaviour has a low level of self-esteem. Further, they reported that low self-esteem can moderate the emergence of depressive symptoms and the desire to commit suicide in the victims of bullying. From the results of the research shows that the low self-esteem can be a determinant of the victim to commit suicide and bring about other psychological symptoms.

Several previous studies have focused on school-based preventive intervention programs (Ferguson, San Miguel, Kilburn, & Sanchez, 2007; Merrell, Gueldner, Ross, & Isava, 2008; J. D. Smith, Schneider, Smith, & Ananiadou, 2004). But the development of one model of intervention for adolescent victims of bullying to increase self-esteem, which can indirectly connect to school community intervention is still slightly researched. Fox and Boulton (2003) found that the Social Skill Training (SST) program can effectively improve students social skills for bullying victims. However, the intervention has not been able to cope with the identity and status of the victims, in the other words, bully attack is still occurred to victims after intervention.

Babington, Malone, and Kelley (2015) suggested that social support programs that could facilitate social interactions for adolescents were very beneficial to the increase in self-esteem. Furthermore, their opinion can be used as a referral to develop programs based on social interaction for adolescent victims of bullying to raise their self-esteem. However, Hanurawan (2016) suggests that forms of intervention or intervention empowerment programs can be done by restructuration school environment to eliminate the negative effects of bullying. The restructuration is targeted at physical environment, social environment, school culture and school curriculum.

From this statement can be taken important points that in dealing with the victims of bullying can not only involve individual counselling or merely a preventative community program, but need a mixture the psychological intervention that targets to victim-friendly school climate. So they will feel welcome again in the school environment and able to interact well in the schools environment without getting bullying treatment again.

In the development of therapy, it is necessary to be composed in advance of the carrying of self and mental welfare and how the relationship between the two. Philosophically, Aristotle has explained that the fact that man has a basic need is to be involved in social activity (Jowett, 1920). In line with Aristotle, Adler (1964) suggests that mentally healthy individuals are the ones who can actualize their abilities into the social realm (social superiority).

From the paradigm it can be concluded that the importance of social interactions to ehhancing mental welfare. In other studies, the result is that self-esteem is a mediator for the improvement

of mental well-being (Christen, Peterson, 2014; Abolfathi, Ibrahim & Hamid, 2014). Therefore to enhance well-being of victims, the variables that must first be intervened are self-esteem.

In fact, Indonesia is a country with a high level of interaction and collectiveness (Hofstede, 1983). Even Indonesia has an interaction system in its own community that has been grassroots from its former ancestors. The system is called "gotong-royong" (Hofstede, 2011). According to Halabi (2015) gotong-royong is the values of the culture as well as active political participative in Indonesia and considered able to make social. In addition, the west countries should learn about creating a community environment that creates active, participatory and mutually helpful social interactions among its members.

Bowen (1986) offers three principles of gotong-royong activity. The principle is that, first is the cooperative or cooperate, the second principle is deliberation or negotiate a plan or decision, the third principle is to put a common interest/group in comparison to the interests of individuals (group Empathies). Of these three principles or the values of gotong-royong, they will be used as the basis of thinking for researchers to develop gotong-royong group psychotherapy.

To sump up, this study will develop gotong-royong group psychotherapy to increase the self-esteem of bullying victims. Furthermore, this new model will be tested through research and Development design (R&D). Previous researchers will create a therapeutic handbook that will then be tested for validity through experts who will then be conducted experiments on the therapy group gotong-royong. Thus the results of this research is expected to offer a form of therapy to increase the self-esteem of bullying victims who apply indigenous values of Indonesian culture.

Bullying and Victimization

The problem of bullying is a psychosocial problem that develops in various countries (Juvonen & Graham, 2014). Furthermore, various studies have sought to find specific criteria from victims and bullying to explain the dynamics of these psychosocial problems, especially among adolescents (e.g., Hawker & Boulton 2000; Dodge, Coie & Lynam 2006; Gini & Pozzoli, 2009; Nakamoto & Schwartz, 2010). Some research results show differences from perpetrators and victims of bullying are located from the urge or need to dominate and aggression. Perpetrators are described as having a high need for aggression and domination, while victims have a need for low domination (Dilmac, 2009; Reynolds & Juvonen 2010; Maulana & Solicha, 2016).

However, some of the other studies show that there are similarities from victims and bullying perpetrators that emotional stability is not well developed during children's time (Dodge et al. 2006; Nakamoto & Schwartz, 2010). Further, Nakamoto and Schwartz (2010) identified that between victims and bullying perpetrators both had low levels of self-esteem. The difference between the victim and the perpetrator is to be located from the encouragement of domination in individual selves. The study of Ketzer and Katarina (2009) showed interesting results, they proved that victims of bullying are predicted to have an opportunity to become perpetrators. So that bullying behavior is like a snowball, the more victims will grow more and more actors.

Supporting the above statement, Hanurawan (2016) also explained that the victim was a very significant role in the negative effects that occurred as a result of bullying behaviour. At the very least, he explained that there were 11 effects received by the victims when he received

bullying treatment, namely: (1) declining self-esteem (2) anxious moods and gifts, (3) difficulty in concentrating, (4) Psychosomatis that usually Characterized by abdominal pain or head, (5) difficulty sleeping, (6) impaired diet, (7) depression to increased risk of suicide, (8) social anxiety, (9) a grudge arising or aggression behaviour that is projected to another object, (10) decreased ability coping, (11) sighting symptoms of post-traumatic.

From the explanation above, can be taken a fundamental conclusion regarding the dynamics of bullying behaviour. The low self-esteem factor is an important factor that makes this behaviour continue to evolve. Even the lack of self-esteem makes the victim have a desire to retaliate or even show the opposite behaviour such as depression, the emergence of other psychological symptoms to plan suicide.

Self-esteem and Gotong-royong Psychotherapy

The concept of self-esteem is one of the most widely investigated variables in all areas of psychological research. There is a lot of empirical evidence proving the power of self-esteem as a foundation of mental Health (Pullmann & Allik, 2000). Other research findings suggest that low self-esteem levels played an important role in the development of clinical depression (Schmitt & Allik, 2005). Self-esteem also emerged as a predictor of positive mental health (Bagley, Bolitho & Bertrand, 2007). So the negative judgment of this individual's self-esteem can be a gateway to the various psychological symptoms. In addition, when the low conditions of self-esteem are reinforced with continuous and continual bullying attacks. According to Klomek, Sourander and Gould (2011) the low level of self-esteem can make victims try to commit suicide. Therefore, psychotherapy treatment for bullying victims which in fact has a low level of self-esteem will be very useful for the next victim's adaptive ability.

Furthermore, to increase self-esteem, it is necessary to know more about the factors that can affect the level of self-esteem. According to Litt, Cuskey and Rosenberg (1982) Individual levels of self-esteem can be influenced by social interaction and social support from the environment as well as by the numerous awards, receptivity and attention of others it receives. In addition, Marigold et al (2014) stated that a community program that could serve the need for social support in the community would increase self-esteem for individuals who have decreased self-esteem accompanied by other psychological symptoms. So that the effective psychotherapy in increasing self-esteem is necessary for the values that among its members are able to reward each other. In this case, the therapeutic concept of gotong-royong will be offered the study to help victims of bullying increase their self-esteem.

To develop the concept of gotong-royong, it is necessary to study on cultural issues in Indonesian society. As it is known that some of the foregoing phenomena there are acts of bullying by ethnic or religious minorities in Indonesia, such as ethnic Chinese who often get bullying attack either physically, verbally or through cyber. Hanurawan (2016) suggests that students may be given the content of a perspective understanding of individual background, cultural and social difference in order to further enhance harmonization and prevent the occurrence of adverse and negative prejudice to individuals or other groups. Negative prejudice ultimately brings the individual concerned to bully others. (Tolsmaa., Deurzen., STARKC & Veenstra, 2012; Sims-Schouten & Cowie, 2016; Kosic., Mannetti & Livi, 2014). According to Hanurawan (2016) negative bias about ethnic, gender, racial, religious or other individual differences is an issue that can be a fragility in Indonesia. In addition, Falk and Heine (2015) have also proved that understanding of the values of cultural differences is very useful for the

increase in self-esteem. Answering the challenge, the values of understanding the difference will be very beneficial if internalized in the scope of therapy. On the contrary, gotong-royong activity will be effective in the event of a cohesiveness and a high sense of togetherness, without certain prejudice between the fellow Members (Bowen, 1986).

From these studies, researchers concluded that a psychological intervention for patients, particularly in raising self-esteem could not only be done with an individual approach, but also accompanied by programs that contained elements Social interactions. Furthermore, Indonesia has a concept of social interaction in its culture that has been applied as a principle and work ethic, namely gotong-royong.

Gotong-royong is the original concept of Indonesian culture. At least since independence in 1945, the idea of social interaction as something collective, consensual, and cooperative has become the ideological basis to be applied in the life of society in Indonesia. According to the origin of the word, gotong-royong comes from the word gotong which means works, and royong which means togetherness (Great Dictionary of Bahasa Indonesia). Meanwhile, Koentjaraningrat (1997) explained that gotong-royong is a collaboration among members of a community.

Furthermore Koentjaraningrat (1997) divides two types of gotong-royong, the first is mutual assistance and the second is community service work. Mutual assistance helps in agricultural activities, activities around the household, party activities, celebratory activities, and in the event of a disaster or death. Whereas community service activities are usually carried out to do things that are in the public interest, which are distinguished between mutual cooperation at the initiative of citizens and forced cooperation. For example, working together to build roads, bridges, build a community hall. Furthermore, according to him, the two types of gotong-royong prioritize the principle of reciprocity, it means that people must help those who have helped them or at least do not harm it. More specifically, the principle implies that a gift or service received creates for the recipient a reciprocal obligation to reciprocate with a gift or service with a value that is at least comparable in the future (Julaikha & Bahri, 2014).

Meanwhile, according to Bowen (1986) gotong-royong has three main dimensions, (1) cooperatives (cooperatives, constitutionally the economic base); (2) Deliberation (technical consensus on the basis of legislative decision making); and, (3) is a collective activity where being ideological in people's lives especially in the countryside, meaning the individuals involved in it more precedence over the interest of the group than self-interest (group Empathies). Each of these requirements relates to the individual's obligations to the community, the dissolution of power, and the relationship of state authority with traditional social and political structures.

Gotong-royong activity has a social connection that describes the process of dynamism but still harmonious. This shows the occurrence of the reciprocal exchange process between the members of the group and its leaders so that among one another is synergized and motivated by a general ethos of selflessness and attention to common good. The term corresponds to the original idea of a moral obligation and general reciprocal replacement. Gotong-royong in a narrow sense can be used as a collective social activity. But the deepest meaning of gotong royong can be explained as the philosophy of life that brings collective life is the most important part in societal interactions (Julaikha & Bahri, 2014).

To develop gotong-royong into a psychological therapy, it must be based on the principles of psychotherapy itself. According to Rappoport (1997) The implementation of psychotherapy should at least meet the 4 principles. First is the goal, the second is obstacles, the third is the test and the fourth is insight. Thus, the development of gotong-royong group psychotherapy will combine original values rather than gotong-royong itself with the principle of psychotherapy

Method

Design of study

The research uses research and development (R&D) methods. This means that the research aims to produce a particular product, and to test the effectiveness of the product. According to Borg and Gall (1983) to be able to produce a particular product, it must use research that needs analysis (used by survey or qualitative method) and to test the effectiveness of the product in order to work in Public, it is necessary to research to test the effectiveness of the product (used by the experimental method). Product effectiveness testing using the pre-test experimental design post-test control group design. In this design the subject is divided into two groups, i.e. the first group is an experimental group that will undergo psychotherapy gotong-royong group and the second group is a control group that is only given psychoeducation related Bullying problems. The goal is to know the effectiveness ratio of gotong-royong therapy. Measurement of variable bound, i.e. self-esteem, done at the time before the therapy session and after termination session. In addition, in order to see the two weeks of post-intervention therapy, researchers also follow up with the re-measurement of self-esteem on each subject.
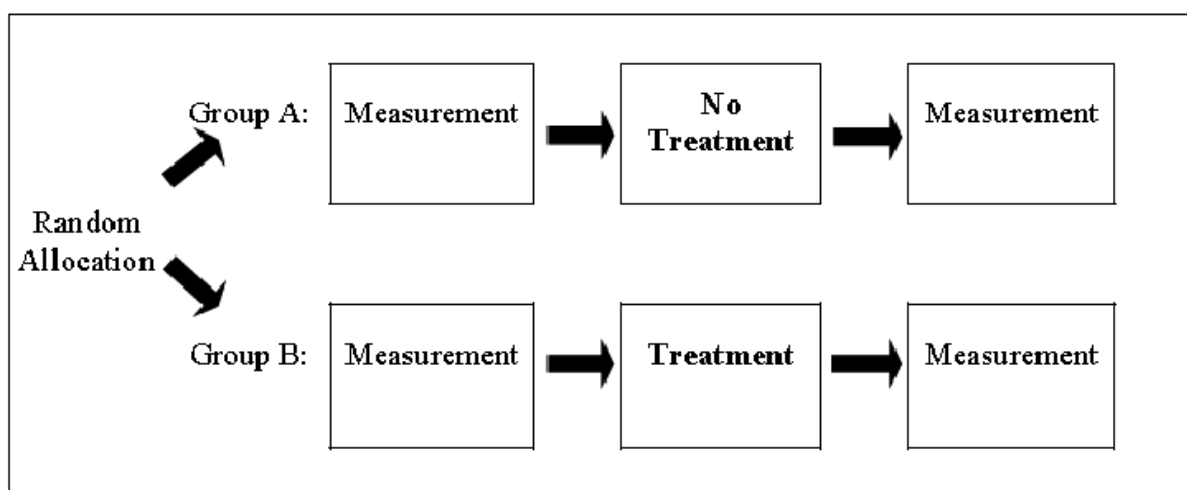
Figure 1. Group of research

The subject is taken using the purposive sampling technique, which is the sampling intentionally according to the prescribed criteria. The subject criteria include: (1) The subject of the male or female being the victim of bullying, (2) The subject of the youth category is 15-18 years old, (3) the subject is not undergoing any other psychological therapies aimed at raising self-esteem Due to victims of bullying, (4) subjects can communicate in order to be able to be cooperative during the research process, (5) Based on screening using the RSES scale, the subject has a level of self-esteem at the level of 1-4, (6) subjects are willing to gotong-

royong by signing informed consent of the therapist. A number of 21 subjects followed this study which were divided into three groups, so that each group consisted of seven subjects. The group division is randomly generated. According to Blaikie (2009) The advantages of the Group division of Experiments and the control group randomly are the group variations will be scattered evenly in each group.

Measurement

The instrument for the selection of respondents in this study was the Rosenberg Self-Esteem Scale (RSES) scale. That is the scale used in measuring the level of self-esteem in adolescents. This scale consists of 10 item. In each item contains a statement about self-evaluation with 5 option answers or also called Likert scales, the five options of the answer are, strongly agree, agree, neutral, disagree, and strongly disagree from the range of 1-5. This scale is based on individual attitudes and perceptions of self-preciousness evaluation, consisting of two dimensions, which are dimensions of positive perception and negative perception dimension.

The RSES scale is a scale that measures the level of self-esteem that has been adapted in various countries and cultures (Corwyn, 2000; Fanti & Henrich, 2015; Hyland, Boduszek, Dhingra, Shevlin, & Egan, 2014). From the results of the adaptation shows that the number of validity and the reliability of self-esteem scales is significant. Therefore, the measurement of self-esteem will be done by adapting the scale of self-esteem that can be understood by the research subject.

Procedure of research

Overall, the process and stages of conducting this research can be seen in the figure below:
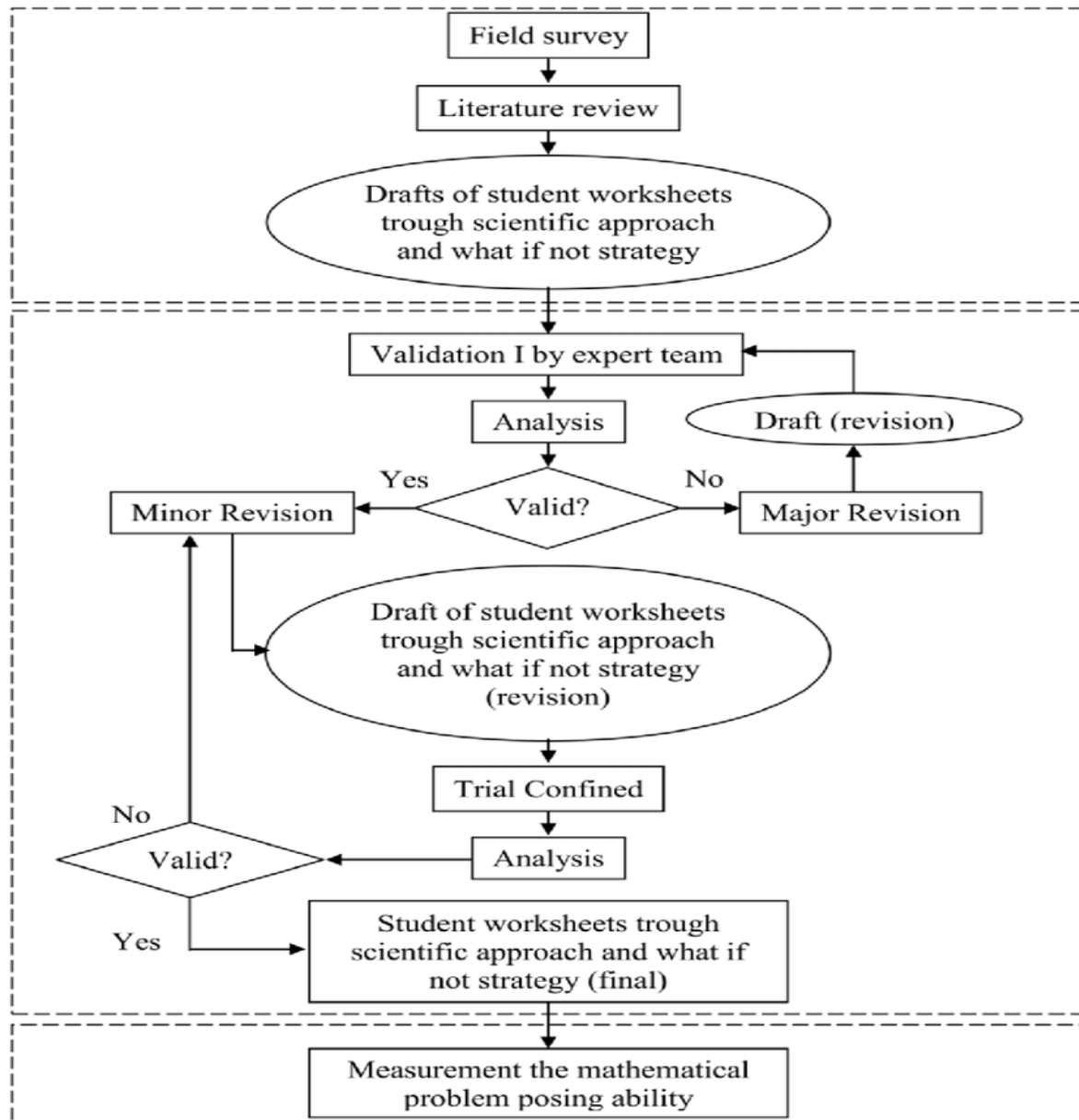
1. **Literature study**

The first step is the study of literature. This step is based on questions (1) why is a new model of psychotherapy therapy needed to improve the self-esteem of adolescent victims of bullying? (2) Does the latest model have a patrimonial value of science or practicality compared to the old model? (3) what needs to be developed from the old psychological intervention model? (4) Can the latest product models be used for a long period of time? In answering these questions, researchers conducted literature studies and interviews in the field with stakeholders involved such as counselling guidance teachers, psychologists and experts in the field of bullying, principals, bullying actors and victims of bullying.

2. Draft of model intervention

The next step is to develop a preliminary module. The development model introduction aims to plan product implementation and create a module design. The development of this module is done in several steps. The first step is to determine the number of therapeutic sessions that can internalize the principles of gotong-royong and psychotherapy itself. The second step, researchers determine the success indicators of each therapy session. Then the final step is to formulate strategic measures in implementing psychotherapy gotong-royong each session.

3. Validation model by expert team

Product validation can be done by presenting several experts or experienced experts to evaluate the new product being designed. Each expert is asked to assess the design, so that the weaknesses and strengths can be further identified. Design validation can be done in a discussion forum. Before the discussion the researcher presented the research process until the design was discovered, the following advantages.

Validation experts are done by four experts. Four experts are academics in the field of psychology with the last education-3 (doctoral), while one member is a psychology practitioner, psychologist in one of the psychiatric hospitals in Surabaya. An expert validation instrument of Cross Validation Rule (CVR) where the score of 1-2 is worth the bad validity, the score of 3 is worth the validity but needs to be fixed while the 4-5 score is worth good validity and is worth implementing. Then, the results of the CVR researchers input into the Excel program, where to score 3-5 given a value of 1 whereas for a score of 1-2 was given a value of 0. A value of 1 means a good validation, while the value 0 is a bad validity which means that aspects of the gotong-royong therapy are irrelevant and should be corrected.

4. Revision

Once the product design is validated through discussions with experts and other experts, it will be able to know its weaknesses. The weakness was subsequently attempted to be reduced by improving the design. So at this stage, researchers revise the product based on advice from expert experts.

5. Measurement by statistical method

The next step is a wider trial. This trial was done with a victim sample. Group members are selected with multiple criteria. The first criterion is that each member of the group is getting bullying treatment at school. The second criterion, each member of the group has a low self-esteem level, which resides at a scale of 1-4 RSES. Product testing was conducted with three sample groups, consisting of two experimental groups and one control group. The design of the research used is "pre-test post-test control group Design".

After completion of the experiment and post-delivery test, held statistical analysis of the difference test. The calculated difference test is between the pre-tests result with Post-test on the experiment group, and in the control group, test the pre-tests difference between the experiment group and the control group, the post Test between the experiment Group and the group Control, and between the gain of the experiment group with the control group. The products produced were socialized into schools to apply. The research draft used is two group comparison pre-test post-test design. In this design, the observation is done 2 times before the treatment and after treatment.

Data Analyses

The type of data in this study is non-parametric data meaning that the data spread is not a normal distribution. Therefore, data analysis does not use T-test to match U-Test. The steps taken on this research are sourced from Widhiarso (2011):

1. Test of homogeneity

This research uses test homogenity variance done using Levene test. A test of homogenity used aims to determine the homogentity of the variance of each group compared to both the therapy of the group Gotong-Royong, as well as the psychotherapy of the old model. The result of Levene's test shows that data from all three research groups has the same variant value ($P = 0.16 > 0.05$) or is in the same condition before it is given the research treatment.

2. Hypothesis Test

The hypothesis test used a non-parametric statistical test using Mann-Whitney Testdan Kruskal-Wallis which aims to test the difference between two experimental groups and one control group (Widhiarso, 2011). In this process, researchers use SPSS program version 16.0 for Windows. The methods of analysis of Mann Whitney U-Test and Krsukal-Wallis are used to see if the median difference between gotong-royong groups, SST and controls is meaningful or not. In a difference, the Mann Whitney U Test was used to compare the type of two groups and the crucial test of the Kruskal-Wallis was used to test the three groups at once. This test not only tests the Median difference, but also tests the Mean.

Results

1. Researchers developed the concept of gotong-royong therapy based on the analysis of needs sourced from literary studies and interviews with the stake holders of bullying. The results of researchers developed a multisystem-based intervention program, a program capable of integrating psychological therapy-based approaches and school community-based approaches for bullying victims.

2. Researchers develop components of gotong-royong therapeutic models among others, the first is the value of deliberations of consensus, cooperation and collective work (Bowen, 1986). Second is the value of social support that creates the group of Emphaties (Karmiyati, 2007), the third is the value of understanding of the differences (Hanurawan, 2016), the four are the values of the help each others, the work of devotion and work together (Koentjoroningrat, 1997). The five principles of psychological therapy are goals, obstacle, test and insight (Rappoport, 1997). Sixth, this therapy uses the self-efficacy Approach Bandura (2008) in an effort to change the behaviour of self-esteem victims of bullying. And seventh, this therapy provides social interaction services aimed at improving its members ' self-esteem (Marigold, 2014).

3. Researchers have developed gotong-royong group therapy consisting of 8 sessions i.e. (1) introductions, (2) excavation problems, (3) group cohesiveness, (4) Group deliberation, (5) Discussion of group needs, (6) awarding of challenges, (7) Discussions on insight and (8) Create a draft project.

4. Researchers conducted preliminary test modules (pilot studies) by testing the effectiveness of therapeutic therapy. The results showed that the gotong-royong therapeutic model could improve psychological function of bullying victims. In particular, social functions, emotional, cognitive and behavioural subjects. From social functions, subjects become more open to their social environment, easily get along and undergo extracurricular activities diligently according to the development of their talents and interests in school. Meanwhile, the development of emotional function was

seen that after conducting the session of therapy the subjects became more in-between and avoided feelings of blame for his condition. Furthermore, the function of cognitive development, the subjects were able to think positively towards him, they realized his excess and tended not to blame his condition. His perception as a victim of bullying has also disappeared from the mind of the subject. And the last of the function of psychomotor development or behaviour indicates that the subjects were no one who hurt him.

5. The analysis of the difference test is mean of the gotong-royong experiment and the control is known that the level of self-esteem in the gotong-royong group before the treatment was administered (M = 1.9714 SD = 0.39461), increased self-esteem after The treatment of (M = 4.7143 SD = 0.27946). Meanwhile, on the self-esteem level control Group of (M = 1.6857 SD = 0.27946), and when retested for (M = 2.3429 SD = 0.09759), it means that the control group's self-esteem score of the subject did not undergo significant changes. Analysis results showed that gotong-royong therapy was effective in raising the self-esteem of bullying victims. Subsequent analyses were hypothesis tests using Mann-Whitney test and Wilcoxon to see comparisons of the significance of the treatment between the two sample groups. The results of the analysis indicate between the gotong-royong group and the control group having a significant difference of influence (P = 0.01).

Discussion

The results of this study showed that significant gotong-royong therapy could increase the student self-esteem of bullying victims. Gotong-royong therapy is a new therapy developed by researchers. The reason that strengthens the therapy gotong-royong effective because of gotong-royong therapy has a component that is holistic, comprehensive, integrative and effective in accordance with the nature of scholarly patrimonial.

The success of gotong-royong therapy is not separated from the role of components of this model in enhancing the self-esteem of victims of bullying. The first component is the psychological approach used in this model. The perspective used for this model in an attempt to change the subject is the self-efficacy theory of Bandura (1977). Self-efficacy is an individual belief or confidence in the ability to organize, perform a task, accomplish a goal, produce something and implement actions to achieve certain skills. The self-efficacy concept relates positively to the concept of self-esteem. Sourced from previous studies proves that the higher the level of self-efficacy in individuals, the higher the level of individual self-esteem (Judge & Bono, 2001., Krämer & Winter, 2008., Iancu, Bodner & Ben-Zio, 2015., Maddux, 2016).

In the context of gotong-royong therapy, efforts to increase self-esteem were carried out based on the theory of Self Efficacy Bandura (1988) stating that one way to increase self-efficacy is by the self-mastery experience method. This method stimulates the individual to be able to master an ability so that he believes in his ability. According to the Bandura (2008) individuals tend to consider themselves to be less valuable because he rarely challenges beyond the limits of his ability, in other words the individual always does the easy things without a challenge. So, on this model the subject is invited to solve the challenge that causes the subject to feel more appreciative of him. The gotong-royong therapeutic component containing the Self Mastery experience is the session in which the subject is given a project, ranging from a lightweight project such as a devoted work and making the building of the egg base to a heavier

individual project such as making Art and craft, selling, engaging interactions and playing with bullying actors. When the subject is able to complete each challenge then the self-efficacy subject increases, so too when the self-efficacy the subject increases it will also increase their self-esteem.

The use of the Bandura approach relates to the second component in this therapy, the gotong-royong component based on the study of Koentjoroningrat (1993). According to him, gotong-royong has at least three activities. Among them, please help, devotion, project and group work. These three took part in several sessions in this therapy. In addition, the third activity is an activity that manifests self-mastery.

The third component of this model that supports therapeutic success is the component of social interaction. According to Marigold, Cavallo, Holmes and Wood (2014) Students who were given stimulation of interacting with each other in his school, then automatically their self-esteem will increase. Gotong-royong therapy provides a service and stimulation to each subject to interact with each other. The interaction system built here is sourced from deliberation values, in which inter group members practise to respect their friends ' opinions. Every activity from the first session to the final session of the therapist always invites the group's fellow Members to work to solve a problem or challenge each session. In addition to the subject being invited to interact with other group members, this therapy also stimulates the subject to establish relationships and interactions with the teacher, other students to the bullying perpetrators at the school. So the more intensive the number of interactions done by the subject will increase the level of self-esteem in the subject.

The fourth component that strengthens the success of this model is the system of social support among group members so that the birth of group empathies. The point is, each subject certainly feels the stigma as a victim, so that with the stigma of the victims group members have the awareness to work together in resolving their bullying conflicts with one another. According to Karmiyati (2017) the social support system established in the Javanese community will increase the perception of success and self-esteem of the people. So the higher the social support that occurs in a group, the higher the self-esteem of individuals in the group. In this therapy, a community group support system is created, where if one member outside the session is disturbed by the bullying person, then the other members try to strengthen the disturbed individual. That is, the social support system is not only intertwined in the therapeutic context, but it also exists at all times, especially in schools. Even this social support system can also be established via social media groups that allow each member to exchange ideas, ideas, empathy and problems.

The fifth component that supports the success of this therapy is providing perspective on differences. According to Hanurawan (2016) one of the acts of discrimination and bullying is caused by students' lack of understanding of differences in perspective. So to solve the case of bullying one way is to provide perspective and insight into the differences between humans. These differences include individual limitations (in this case relating to students with special needs), differences in physical form (skin colour, height, weight, etc.), differences in socioeconomic status, differences in ethnicity, race and religion, as well as differences in the personality traits of each student. For this reason, in the context of mutual assistance therapy each group member is encouraged to respect each other's differences with others so that he believes differences will instead strengthen the social system instead of causing social conflict.

The sixth component in this therapy is the application of the mutual cooperation system based on Bowen's view (1986). According to him, in mutual cooperation activities must involve deliberation, corporate and collective activities. Deliberation is a discussion activity based on the principle of mutual respect for the opinions of others. The involvement of individuals in discussion activities and making suggestions is suspected to be able to increase the individual's self-esteem. Based on research from Christens and Peterson (2012), it is known that students who actively voice their opinions, both active in class and in intra or extra organizations, have higher levels of self-esteem than students who tend to be passive in their schools. In other words, the deliberation activity in which the process of expressing an opinion is involved will influence the increase in self-esteem of students who do it.

The last component in this model that helped support the success of raising the self-esteem of bullying victims, namely this therapy is packaged using the principles of psychological therapy based on the opinion of Rappoport (1997). According to him an intervention is said to be psychological therapy in each session contains four principles, goals or clear objectives. Gotong-royong therapy has a clear purpose of increasing the self-esteem of bullying victims so that each session in this therapy can illustrate the purpose. The second in psychological therapy psychotherapists should dig obstacles or obstacles in the client's self, or in other languages called psychological dynamics. All three therapists are able to understand the obstacles of his clients, so he will also easily solve the problem. The third in psychological therapy should occur test process, which means checking the pattern of the previous client's behaviour and testing new forms of effective behaviour applied in the client's life and the last in psychological therapy should obtain the insights that arise Within the client. The four principles of psychological therapy are manifested in the session in this therapy.

Furthermore, the success of this model is also influenced by the multisystem approach used. Researchers see that bullying problems are not just personal problems for victims or perpetrators alone or community issues. Bullying is a problem that should be reviewed from these two aspects, both from the personal aspect and from the Community system. According to Olweus (1993) bullying involves personal problems and community systems. It is said that personal problems because of those involved in bullying activities will impact the psychological in question. For example, Willard (2003) states that the victims of bullying have a high risk of depressive symptoms. So, personal handlers, especially those focused on the psychological aspects of victims and bullying practitioners need to be developed. Personal handling can also be referred to as directive handling. This means that the handling is directly aimed at individuals involved in bullying, both victim and perpetrators. In addition, bullying behaviour also leads to the impact of the evolutionary systemic. That is, this behaviour will continue to exist even to develop into a more serious problem year after year, from generation to generation. So Ketzer and Cathrine (2009) mentioned that bullying issues have been globally cultured which resulted in all corners of the world, whether in the urban or rural areas of bullying culture where individuals or groups High-domination will oppressive individuals or weaker groups repeatedly. From this point of view, therefore, the completion of bullying case should also be done with an indirective Community system approach. This means that the handling does not see from the individuals involved, but also builds a Community system aimed at eliminating bullying cultures.

The development of this multi-system program is necessary for every element involved in the development of students, whether teachers, parents, counsellors and psychologists or therapists are able to carry out a package of intervention program harmonically so that they can Work together to address bullying problems at school. Gotong-royong as an Indonesian social system is believed to have effective values for the resolution of bullying problems. From the review, the psychological values contained in the gotong-royongthen become the fundamental principle for the development of this therapy.

Conclusion and Implication

Based on the results of the study, it can be concluded that it has developed the latest psychological aid model in raising the victim's self-esteem. This Model is called gotong-royong therapy. The gotong-royong therapeutic Model combines seven components manifested in each session.

This research is expected to provide benefits for the field of psychology, especially clinical psychology and educational psychology in addressing problems related to bullying behaviour in schools. This research can provide an important overview of the importance of multi-system integration, which means merging some aspects of the problem in solving bullying problems at school.

This research has certainly not been separated from the shortcomings and limitations that are owned by researchers, such as this research has not been able to answer questions about whether this model of Gotong-royong therapy can also be implied to Bullying behaviour in controlling its aggressiveness. In addition, this research has not been able to answer questions related to what if the gotong-royong model compared to other interventions to address bullying problems such as Cognitive Behavioural Therapy (CBT) interventions, KiVa model Bullying or any other type of intervention. In addition, to better ensure the reliability of gotong-royong therapy also need to be tested on different contexts and populations, such as in the population of elementary School (SD) or high School (SMA) or even in the adult population. Therefore, it is recommended for subsequent research to be able to answer these questions.

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"I was very frightened at this moment…"

What medical students want to share with their donors following the gross anatomy course

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ABSTRACT

Objectives

Many medical schools practise commemorative or thanksgiving ceremonies following gross anatomy courses. Taking into account a bio-psycho-social model of medical education, the present study investigates medical students' implicit feelings and thoughts during the celebrations, the differentiation of lived body (Leib) and objectified body (Körper), and the spiritual aspects of anatomical education.

Methods

We examined 1653 short texts which students addressed to their donors between 2010 and 2017 at a German university. 140 comprised surprising latencies. During an interdisciplinary workshop (with 14 participants of the subjects: medicine, law, philosophy, psychology and social pedagogy) we identified six cases and discussed them using two procedures of objective hermeneutics: sequential analysis and depth hermeneutics.

Results

When depersonalization of the fragmented corpse progresses during dissection, the representation of a person "behind" the object of anatomy is formed in the student. Coming to terms with transience entails a spiritual challenge to the individual student when composing the short text addressed to the donor.

Conclusion

Taking into account medical students' unconscious feelings and thoughts following a dissection course may inspire medical teachers.

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