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We want to express our sincere appreciation to all reviewers for taking time from their busy schedules to review each assigned manuscript and offer their professional expertise and recommendations for improvement of these published articles. Also, we like to take this opportunity to acknowledge the hard work of our support staffs at the IAFOR who were involved with the publication of this journal.

Please note that we are seeking manuscripts for our upcoming 2020 Spring and Fall issues. Below is the link to the journal's web page for your attention; please review this web page to become familiar with the journal's objectives and the submission guidelines for authors: http://iafor.org/publications/iafor-journals/iafor-journal-of-psychology-and-the-behavioral-sciences/

If you have any questions, please do not hesitate to contact us, otherwise please send your manuscript to the journal's editors below. Thank you for considering this invitation and we look forward to hearing from you soon.

Journal Editors,

Dr Sharo Shafaie
sshafaie@semo.edu
Dr Deborah G. Wooldridge
dgwoold@bgsu.edu
The *IAFOR Journal of Psychology and the Behavioral Sciences*
https:// ijpbs.iafor.org

Editors & Reviewers

Spirituality and Psychological Well-being as Buffers of Suicide Probability among Selected Young Filipino Gay Men and Lesbian Women

Christine Guianne Ramos
Marc Eric S. Reyes
Ryan Francis O. Cayubit
University of Santo Tomas; Manila, Philippines

Abstract

Suicide is a serious health concern worldwide making it the second leading cause of death among adolescents and young adults. Among those at-risk for suicide are lesbian, gay and bisexual (LGB) youth, who are reported to be more likely to exhibit suicide behavior than their heterosexual counterparts. LGB-specific stressors, known as sexual minority stress, cause this health disparity. However, majority of studies on LGB youth focus on the risk factors of suicide despite the need for more research on protective factors. This study addresses the gap in the literature by looking into how spirituality, an overlooked protective factor in sexual minority, and psychological well-being can buffer suicide behavior among 109 lesbians and 191 gay Filipino youth. Utilizing the cross-sectional predictive research design, a total of 300 respondents completed the Suicide Probability Scale, Spiritual Involvement and Beliefs Scale – Revised and Ryff's Scales of Psychological Well-being. Results revealed that psychological well-being and spirituality are negatively correlated with suicidality. Moreover, stepwise regression indicated that both psychological well-being and spirituality predict suicide behavior separately, but only psychological well-being has a predictive relationship with suicide behavior when both variables co-occur. Implications of these results are discussed.

Keywords: Suicide protective-risk factors, spirituality, psychological well-being, Filipino youth, lesbians, gays

Introduction

Suicide is considered as a serious health concern worldwide responsible for approximately one million deaths annually and an estimated yearly mortality of 14.5 deaths per 100,000 people (Schrijvers, Bollen, & Sabbe, 2012). According to World Health Organization (2012), it is the 15th leading cause of death generally and the second leading cause of death among adolescents and young adults, ages 15-29 years old. In the Philippines alone, young people ages 15-24 years old have the highest rates of suicide attempts and mortality from 1976 to 2005 (Redaniel, Lebanan-Dalida, & Gunnell, 2011). In addition, studies show that adolescence and young adulthood are also the periods of increased risk for non-suicidal self-injury and suicide behaviors (Tsypes, Lane, Paul, & Whitlock, 2016). Suicide behavior is not only limited to the completion of suicide but also includes suicidal thoughts and ideas that they never acted on, to actual attempts of wide range of degrees of severity, to a fatal one (Schrijvers et al., 2012).

Suicide behavior is an extensive array of psychopathological occurrences expressed in terms of thinking (suicidal ideation and planning, thoughts and wishes to be dead), gestures (aborted action to end one's life), to attempts (self-destructive behavior with at least some resolve to kill oneself) (Pawlak et al., 2016). Studies have identified personality traits, sociocultural, biological, physical, and genetic factors, and mental illnesses as risk factors for suicide behavior (Nagra, Lin, & Upthegrove, 2016). For young adults, poor social support, substance use disorders, family conflict, feelings of hopelessness, and mood disorders were all noted to be risk factors for suicide. Additionally, there were numerous risk factors appearing in higher magnitudes among those who had previous attempts (Kyle, 2013). These risk factors may have varied personal effects on a person depending on their susceptibility and resilience (Pawlak et al., 2016). On the other hand, resilience, also known as a moderating, buffering, or protective factor, refers to resources that lessen the probability of developing suicide behavior in the presence of risk factors (Kleiman, Miller, & Riskind, 2012). Protective factors known to reduce suicide risk for young adults also include their gender, adaptive coping styles, and spiritual faith (Kyle, 2013).

Mościcki (2001) proposed that suicide risk is a result of the complicated constellation of risk factors and limited or lack of access to protective factors such as family cohesion, sufficient social support, availability of mental health services, and enriched coping skills, as well as the presence of intrapersonal protective factors such as religiousness and spirituality (Kyle, 2013; Meadows, Kaslow, Thompson, & Jurkovic, 2005). It is important that researchers dedicate studies on identifying different risk and protective factors for suicide behavior in order to advance how interventions are developed and implemented on the general population and at-risk populations (Kleiman & Liu, 2013; Whitaker, Shapiro, & Shields, 2016).

Among those populations found to be at risk of suicide behavior are the lesbian, gay, and bisexual (LGB) adolescents and young adults. For instance, LGB youth are up to three times more likely to have thoughts of suicide and four times more likely to attempt suicide compared to the heterosexual population (Bostwick et al., 2014; Kann et al., 2016). They attempt suicide at a higher rate using more lethal methods and were significantly more likely to exhibit suicide behavior (Hong, Espelage, and Kral, 2011; Shearer et al., 2016). Risk factors for suicide behavior in LGB youth are the same with the general population and there are LGB-specific risk factors and markers that may have a greater impact on the LGB individuals affecting their suicide behavior (Silenzio et al., 2007).

According to multiple studies and meta-analyses, LGB youth's minority status is a risk factor for suicide behaviors. This in turn makes sexual minority youth, in particular, a vulnerable population in spite of the increase in their visibility and recognition in public (Tsypes et al., 2016; Burton, Marshal, & Chisolm, 2014; Wells et al., 2013). Sexual minority youth is the umbrella term referring to adolescents and young adults who identify as lesbian, gay, bisexual, sexually fluid or queer, and non-heterosexual (Ceglarek & Ward, 2016). LGBs are considered sexual minorities because of their sexual orientation in relation to the majority heterosexual population (Doull, Watson, Smith, Homma, & Saewyc, 2016).

Compared to their heterosexual and gender-conforming counterparts, LGB individuals have to deal with recurrent exposure to threat, such as rejection and discrimination, because of their minority status (Cohen, Blasey, Taylor, Weiss, & Newman, 2016). Meyer as minority stress, suggesting that a range of specific and enduring psychosocial stressors affects sexual minorities leading to negative behavioral health outcomes (Cohen et al., 2016; Goldbach & Gibbs, 2017), theorized such threats to the well-being of LGB people.

Minority stress theory implies that the unique form of stress experienced by sexual minorities is brought about by the disagreement between their internal sense of identity against the social norms and expectations of the majority (Meyer, 2003; as cited in Craig & Austin, 2016). People of the minority experience discrimination, stigma, and victimization as a result of a heterosexist and hostile culture (Meyer, 2003). Meyer (2003) defined minority stress in LGB as being related to internalized negativity, sensitivity to rejection, harassment, or concealment of sexual orientation. The LGBs struggle with harmful reactions to their minority status and a concomitant absence of social support from their family, friends, and the society (Goldbach, Tanner-Smith, Bagwell, & Dunlap, 2014).

In addition, Meyer (2003) reported "LGB youth are even more likely than adults to be victimized by antigay prejudice events" (p.680) and because they are just realizing their identity, these experiences could take a toll on their spirits and hinder development (Saltzburg, 2005). Such experiences would lower their social status and ensue social conflict with the majority, which are thought to increase psychological stress, eventually leading to a higher likelihood of developing psychological distress and disorders (Perry, Chaplo, & Baucom, 2017).

Most of the literature on the health outcomes of LGB youth focus on risk factors despite the need for more research on protective factors, leading to little knowledge as to what protective factors will inhibit suicide behavior on LGB youth (Haas et al., 2011; as cited in Whitaker, Shapiro, & Shields, 2016). Some of the multiple factors identified in some studies on suicide behavior in LGB youth include living in environments that are more accepting of lesbians and gays, sexual minority youth's amount of social support, and resilience brought about by their strong sense of positive LGB identity (Hatzenbuehler, 2011; Ceglarek & Ward, 2016). However, sexual minority youth experience difficulty navigating between their stigmatized characteristics and psychosocial risk factors because of the lack of effective coping skills and support (Craig & Austin, 2016). Their relationships with their family members, peers, and even religious communities may be disrupted, particularly during the time of their discovery or revelation of their sexual identity, due to rejection (Ryan, Huebner, Diaz, & Sanchez, 2009). It is also worthy to note that some LGB youth may isolate themselves from religious communities whose views do not affirm their sexual identity, while others may find greater support through religious beliefs or institutions (Dowshen, et al., 2011).

Despite the growing literature on how religion and spirituality may protect the general population from stressors the LGB encounter by providing them with resilient attitudes, such as calmness in dealing with suffering, positive learning from experience, and confidence in one's self (Peres, Moreira-Almedia, Nasello and & Koenig, 2007), these relationships between religion, spirituality and health behaviors may not necessarily apply to LGB youth. Additionally, little research has been conducted on the role of religion and spirituality in the sexual minority (Dowshen et al., 2011). Current literature on the religiosity of sexual minorities and its relationship to mental health outcomes suggests that it can function as both a source of risk and developmental asset (Dahl & Galliher, 2012).

Researchers have hypothesized that the conflict that the LGB experiences within the religious context may have a negative effect on their development as individuals (Rostosky, Danner, & Riggle, 2010, as cited in Dahl & Galliher, 2012). Furthermore, despite assumptions on how the negotiation of sexual orientation and religion may lead to negative outcomes, some LGB are able to integrate their religiosity and their sexual orientation by affiliating with LGBT-affirming religious groups and being spiritual (Lytle, De Luca, Blosnich, & Brownson, 2015). Their participation in these organizations has been related to higher levels of spirituality and psychological health and lower risk of internalized homonegativity (Barnes and Meyer, 2012; Lease et al., 2005, as cited in Lytle et al., 2015).

In line with inquiries on religious participation, studies on spirituality as a resiliency or protective factor is becoming more abundant in the field of psychology with recent empirical studies reporting that meaning in life implied by having spiritual orientation can affect psychological adjustment (Laubmeier, Zakowski, & Bair, 2004). Furthermore, spirituality focuses on the discovery of inner strength, surpassing daily challenges, and finding meaning in life or sense of purpose (Hirsch, Webb, & Kaslow, 2013). Spirituality serves as a source of hope and power, thus enhancing a person's well-being (Chiang et al., 2016).

According to Ryff (1989), psychological well-being is a cluster of psychological aspects comprising of resilience-related features such as self-efficacy, maturity, and purpose in life, involved in human functioning which focuses on realizing one's optimal psychological functioning and striving to find their purpose and meaning in life. Ryff and Singer (2003) also added that those who are able to maintain their physical and psychological well-being are more resilient and are able to recuperate more rapidly from stressful situations. Although less is still known regarding resilience of sexual minority young adults, there is a current trend in research addressing gaps in literature by focusing on the identification of factors mediating risk of those who experience minority stress (Meyer, 2015).

Researchers on the field of suicide have focused more on exploring the risk factors for suicide behaviors, but recently, prominent names in the field have called for more research studying protective factors that can be developed in those who are at risk (Stockton, Tucker, Kleiman, Wingate, 2016). Concentrating on risk factors, instead of resilience or protective factors, have resulted to substandard effective suicide prevention and intervention strategies and increasing the knowledge on resilience would enhance the efficiency of these strategies (Brent, 2011, as cited in Kleiman & Liu, 2013).

This study would provide additional information on factors that could help understand the impact of risk factors on suicide behavior, especially in the LGBT community. Apart from determining the different risk factors of suicide behavior in LGBT, it is important that researchers or psychologists in particular, gain more understanding of how their strengths and

resilience could be utilized to buffer suicidality. In addition, most of the studies on LGBT focuses more on how their sexual orientation and gender identity lead to psychopathology and less attention on strategies on how to help them, such as looking into their strengths and resilience.

Undertaking this study will not only fill a gap in the literature of suicidality but also will also give researchers and psychologists more insight on how to help a diverse group of clients, in which the LGBT community is included. Growing up in a country with approximately 92.5 percent Christians, consisting of mostly Roman Catholics (Kanas, Scheerpers, & Sterkens, 2017), it is important to determine how LG Filipino youth use their spiritual orientation as a means of dealing with difficult situations and psychopathological behavior, particularly suicide. By examining spirituality, psychological well-being, and suicide behavior in LG Filipino youth, the results of this study are expected to aid in the development and implementation of better psychological programs and services which are anchored towards the specific needs of LG Filipino youth. By understanding the dynamics of suicide in LG youth, researchers and psychologists can construct more effective treatments that are specifically tailored in buffering suicide behavior, as well as both in prevention and recovery from suicide attempts.

Moreover, this study would also provide resources to the LG youth on what protective factors they can utilize when they experience LG-specific stressful situations. The results of this study would help address this health problem of LG youth by means of providing understanding as to how their psychological well-being and spirituality can serve as protective factors against suicide behavior. It could lead to finding ways for spirituality and being LG to coexist, helping a lot of spiritual LGs to accept themselves and realize that being spiritual doesn't mean they are going to be punished, which would also help in the development of their psychological well-being.

Method

Research Design
The cross-sectional predictive was utilized in the present study that investigated if protective factors such as spirituality and psychological well-being would predict lowered risk factors of suicidal behaviors. This type of research according to Johnson (2001), deals with the forecasting or prediction of a phenomenon based on data collected from participants on a single point in time.

Participants
Self-identified lesbian women (109; 36.33%) and gay men (191; 63.67%) ages 18 to 24 years old ($M = 20.98$, $SD = 2.10$) participated in this study. A nonprobability snowball sampling method in obtaining the 300 total number participants from the National Capital Region (NCR) was utilized. The participants were recruited via referrals from friends and family of the researchers and from members of LGBT organizations that know self-identified and out lesbians and gays. Self-identified lesbians and gays refer to those who are out of the closet and acknowledge their attraction to the same sex. Selected participants completed the survey questionnaires in person after signing a written informed consent form. Participation in the study was voluntary and no compensation was given.

Research Instruments

Suicide Probability Scale (SPS). The Suicide Probability Scale is a 36-item, self-report measure used to assess suicide risk in adolescents and adults (Cull and Gill, 1989). Responses are rated using a four-point Likert scale ranging from 1 ("None or a little of time") to 4 ("Most or all of the time"). Statements come from four clinical subscales of suicide behavior, which are comprised of Hopelessness (e.g. "I feel I am not able to do many things well"), Suicide Ideation (e.g. "I feel people would be better off if I were dead."), Negative Self-Evaluation (e.g. "Things seem to go very well for me."), and Hostility (e.g. "When I get mad, I break things."). The sum of the scores of the subscales equate to a total score reflecting suicide probability. Higher scores indicate higher suicide risk. The internal reliability of the SPS total score is high with a Cronbach alpha of .93 while its subscales ranged from .62 to .89 (Brown, 2001). Bisconer and Gross (2007) also used the SPS on the assessment of suicide risk in a psychiatric hospital. In their study, the Cronbach's alpha of the overall SPS was .92 while the SPS subscales reported values ranging from .67 to .88. The most widely used subscale of SPS is the Suicide Ideation with a Cronbach's alpha as high as .90 in studies (O'Connor & Noyce, 2008). The alpha coefficient of the SPS total scores in this study is .88.

Spiritual Involvement and Beliefs Scale (SIBS-R). The Spiritual Involvement and Beliefs Scale – Revised (SIBS-R) is a 22-item self-report questionnaire designed to measure spiritual actions and beliefs across religious traditions through a 7-point Likert scale (Strongly Agree to Strongly Disagree) (Hatch, Burg, Naberhaus, & Hellmich, 1998). Sample items are "I find serenity by accepting things as they are." and "I have a personal relationship with a power greater than myself." The lowest and highest score range from 22 to 154, with higher scores demonstrating greater level of spirituality. The SIBS-R has been found to have internal reliability coefficient of .92 (Hyland, Geraghty, Joy, & Turner, 2006). It was correlated with the items from The Duke University Religion Index (DUREL) with coefficients ranging from .66 to .80, suggesting adequate validity. When SIBS-R was used in Litwinczuk and Groh's (2007) study, a Cronbach's alpha of .83 was recorded. The Cronbach's reliability of SIBS-R in the study is .87.

Scales of Psychological Well-Being (SPWB). The Scales of Psychological Well-being by Carol Ryff (1989) is a 42-item instrument used in the measurement of psychological well-being across six dimensions: autonomy (e.g. "I tend to be influenced by people with strong opinions."), environmental mastery (e.g. "In general, I feel I am in charge of the situation in which I live."), personal growth (e.g. "I tend to be influenced by people with strong opinions."), positive relations with others (e.g. "I often feel lonely because I have few close friends with whom to share my concerns."), purpose in life (e.g. "I don't have a good sense of what it is I'm trying to accomplish in life."), and self-acceptance (e.g. "In many ways I feel disappointed about my achievements in life."). Items are rated from 1 (Strongly Disagree) to 6 (Strongly Agree). Two kinds of scores are produced from the SPWB: the six subscale scores and the total score. The six subscales scores are computed by adding the responses each subscale. Furthermore, in order to come up with an overall psychological well-being score or total score, the scores on the six individual scales are added. High subscale scores indicate mastery of the specific dimension and high total scores reflect greater psychological well-being. According to Ryff, the Cronbach's alpha coefficients of the subscales of the test ranged from .67 to .84 while the total coefficient of the instrument is .95. In addition, it has a satisfactory test-retest reliability and is inversely correlated with instruments that measure psychological distress. Costanzo, Ryff, and Singer's (2009) study on cancer patients' well-being reported a Cronbach's alpha of .75 to .84. On the other hand, a study by Ruini, Vescovelli, and Albieri (2013) on well-being, the total score of the instrument reported a Cronbach's alpha of .83.

Another study by Gallagher, Lopez, and Preacher (2009), the Cronbach's alpha of the instrument ranged from .72 to .85 in the undergraduate sample and .71 to .84 in the MIDUS2 sample implying adequate internal consistency in both of their samples. Cronbach's alpha coefficient for the whole scale SPWB's reliability measure in the study is .88.

Research Procedure

Approval from the Graduate School Ethical Review Board of the University of Santo Tomas was sought first to ensure ethical considerations and the safety, rights and well-being of the participants were considered. Sourcing and recruitment of self-identified and out LG youth followed and was accomplished through referrals from family, friends, and LGBT organizations. Participants' eligibility to be selected was based on the following criteria that they are: (1) 18-24 years of age; (2) self-identifying as lesbian (women attracted to women) or gay (men attracted to men); and (3) resides in the National Capital Region (NCR). Socioeconomic status, occupation, or educational attainment were not considered in the selection process and eligible participants signed an Informed consent form prior to test administration. Completion of the paper-and-pencil survey questionnaire was about 15-30 minutes, as such the participant's time commitment for the study is at most 30 minutes. Debriefing was conducted on the participants and were given referral details of mental health specialists (psychiatrists, psychologists, counselors) and crisis help/hope lines in the event that they feel they need further assistance.

Results

Descriptive statistics were used to determine the levels of spirituality, psychological well-being and suicide probability of the participants. Result showed that the level of spirituality of the participants is moderate (M=104.94; SD=19.28) an indication that lesbian and gay Filipino youth are often going through a process of spiritual individuation, which will eventually result to a more clearly defined and differentiated concept of spirituality as time progresses (Barton & Miller, 2015). The participants also appear to be moderate in terms of their psychological well-being (M=166.70; SD=23.69). This means that those who exhibit this level of psychological well-being has an increased risk of developing psychological distress and disorders, and in the case of lesbian and gay youth, this can be attributed to the unique stressors brought by prejudice and stigma directed towards them (Schotanus-Dijkstra et al., 2016). In terms of suicide probability, result shows that they are under mild suicidality and that they belong to medium-risk group (M=72.96; SD=20.70). This suggests that there is some suicide potential and there is a need for a careful clinical evaluation of their suicide risk. This presence of suicide risk in lesbian and gay Filipino youth is due to the combination of general and LGBT-specific risk factors and lack of support and effective coping skills (Liu & Mustanski, 2012; Craig & Austin, 2016).

Step-wise multiple regression analysis was performed to examine the predictive utility of spirituality and psychological well-being on suicide probability. The first model tested made use of only spirituality as the independent variable while the second model used both spirituality and psychological well-being. Based on Model 1, result suggest that spirituality plays a significant role in lowering the possibility of committing suicide [F(298) = 28.917, ΔR^2 = .085, p < .001] as it can account for 8.5% of the variance observed in the suicide probability of the respondents. Its unique contribution, based on its beta weight, is also significant (see Table 1). Result of Model 2 is also significant [F (297) = 87.256, ΔR^2 = .366, p < .001], it appears that the combined effect of spirituality and psychological well-being can account for

36.6% of the variance in the suicide probability of the participants. However, when their respective beta weights were examined, it is only psychological well-being that has a unique and significant contribution in lowering the chances of committing suicide (see Table 1) while spirituality became a non-factor. Changes in the pattern of the results are explained in the discussion section.

Predictors	Suicide Probability			
	B	SEB	β	t
Model 1				
Spirituality	-.319	.059	-.297	-5.377*
Model 2				
Spirituality	.044	.059	.041	.745
Psychological well-being	-.550	.048	-.629	-11.524*

$p < .001$

Table 1: Regression for spirituality and psychological well-being on suicide probability

Discussion

The purpose of this study was to determine if spirituality and psychological well-being could protect young lesbian and gay Filipinos against suicide behavior. It was found that spirituality and psychological well-being lessen the likelihood of developing suicide behavior. However, psychological well-being emerged as the more important factor in reducing it. Despite evidences of the negative relationship between spirituality and suicide behavior, when psychological well-being was included in the second model, spirituality did not predict suicide behavior in young lesbian and gay Filipinos. Since individuals exhibit combinations of traits and a matrix of personality dimensions, it was important that co-occurring resiliency factors are studied separately and combined in order to arrive at a more distinct and extended understanding of how one factor affects one another in terms of suicide risk (Kleiman, Adams, Kashdan, & Riskind, 2013).

In the first model, despite accounting for only 8.5% of the variance, the current finding is congruent with studies on the role of spirituality in predicting suicide behavior (Rasic, Robinson, Bolton, Bienvenu, & Sareen, 2011; Hirsch et al., 2014; Sansone & Wiederman, 2015). Spirituality remained as a significant predictor of suicide ideation even after controlling for suicide correlates (Taliaferro, Rienzo, Pigg, Miller, and Dodd, 2009). Venturing on one's spirituality as a source of strength cultivates resilience because of the protective association of spiritual coping on self-esteem outcomes and life purpose (Shilo & Savaya, 2012).

Using minority stress theory as a framework, non-affirming religious settings can incite hostile social environment to lesbian and gay individuals leading to mental health problems and internalized homophobia (Barnes & Meyer, 2012). People who experience conflicts between their religious and sexual identity, such as lesbian and gay Filipinos, deal with it by remaining religious but not attending church community, moving to another denominational affiliation, reformulating old interpretations of Bible teachings, abandoning their religious identity together, or identifying as spiritual rather than religious (Hamblin & Gross, 2013). Since abandoning one's religious institution is culturally, socially, and spiritually discomforting especially for Filipinos (Barnes & Meyer, 2012), members of the lesbian and gay community integrate their identities by focusing more on their own spirituality and relationship with God or a higher power, self, and others (Dahl & Galliher, 2012; Halkitis et al., 2009). Due to the

long history of marginalization that LG individuals experienced from religious communities, they learned how to find spirituality and live a meaningful life with or without being affiliated with a religious community. When LG individuals are able to separate themselves from formal institutionalized religious practices by nurturing a sense of spirituality, they are able to protect themselves from the effects of negative religious experiences on the mental health of LG individuals (Sherry, Adelman, Whilde, & Quick, 2010). They withstand adversities brought by their sexual minority status by re-envisioning a Higher Being that is accepting, forgiving, and loving, and by realizing that they are still worthy of spiritual benefits afforded by their ideologies (Shilo & Savaya, 2012).

Interestingly, when spirituality was analyzed with psychological well-being in the second model, spirituality became unnecessary in the prediction of suicide behavior. This may be explained by the nature of psychological well-being, in which it is a set of psychological dimensions involved in optimal human functioning consisting of resiliency factors (Sagone & De Caroli, 2014). There is a possibility that the emphasis of spirituality on meaning in life was obscured by the other dimensions of psychological well-being, such as search for meaning and purpose, as well as positive relations (van Dierendonck, 2004). In addition, it can be assumed that the limited ability of lesbian and gay individuals to access their inner resources and have a satisfying relationships with God or a higher power was not enough to contribute to the reduction of suicide behavior due to the process of spiritual individuation (van Dierendonck, 2004; Barton & Miller, 2015). Moreover, spirituality had always been positively associated with psychological well-being (Kamitsis & Francis, 2013; Sacco, Park, Suresh, & Bliss, 2014; Jafari et al., 2010; von Humboldt, Leal, & Pimenta, 2015). Higher levels of spirituality were related with better levels of different measures of psychological well-being, such as negative and positive affect, purpose in life, positive relations with others, personal growth, self-acceptance, environmental mastery, and autonomy (Greenfield, Vaillant, & Marks, 2009). It is then important that future researchers look more into the relationship of these variables by looking into how their subscales influence one another.

As for psychological well-being as a protective factor in young and lesbian gay populations, majority of the studies focused on the presence or absence of psychological disorders and distress. It must be taken note of that psychological well-being is not simply the flipside of psychological distress but are both important indicators of overall mental health (Ryff, 2013). While there is limited research on psychological well-being and suicide with lesbian and gay youth, there are plenty of findings from the general population that will support the findings that can potentially generalize to the target population.

The presence of on meaning in life, a dimension of psychological well-being and often negatively related to suicide risk factors, is simply discordant with suicide behavior since someone who sees that life is meaningful would less likely attempt to end their lives (Kleiman & Beaver, 2013). When individuals see meaning and purpose in their lives, there is an accompanying sense of fulfillment, a sense of rationality or understanding of being, and the search and fulfillment of sensible ambitions leading to a realization of their potential (Ho, Cheung, & Cheung, 2010; Browne et al., 2016). Apart from the importance of meaning in life, Sagone and De Caroli's (2014) pointed out that those who are open to new experiences with the goal of realizing their own potential; let themselves grow and expand beyond their comfort zones; develop healthy relationships with others built by trust, affection, empathy, and intimacy; and are able to adjust to the changes in their environment are more likely to resist difficulties and feel resilient. The importance of resiliency in preventing psychological disorders has always been emphasized, and it when there is a reduction of this factor, it leads

to an increased risk of emergence of mental disorders, which would subsequently resort to higher levels of thoughts of suicide (Izadinia, Amiri, Jahromi, & Hamidi, 2010).

In summary, psychological well-being protects young lesbian and gay Filipinos against suicidality because it involves resiliency factors such as purpose in life, self-efficacy, and maturity (Sagone & De Caroli, 2014). It deals with the growth and development as a person, chasing meaningful goals and values, coping with life difficulties, and establishing positive relationships and connection with others (Krok, 2015; Ryff & Singer, 2008). People who exhibit significant well-being are more resilient, which leads to a smaller chance of experiencing suicide behavior (Bates & Bowles, 2011). In addition, lesbian and gay individuals also exhibit positive aspects they make us of as coping strategies, which are similar to the concept of psychological well-being. Qualitative analyses revealed that these positive aspects include freedom from stereotypical gender roles, living honestly and authentically, discovering sexuality and relationships, serving as positive role models, forging strong connections with others, feeling of belongingness to a community, having families of choice, developing compassion and empathy, gaining a sense of self and personal insight, and contribution to social justice and activism, which all contribute to their optimal human functioning (Riggle, Whitman, Olson, Rostoksy, & Strong, 2008). Studies then suggest that it is important to enhance one's resilience by focusing on interventions that target psychological well-being, which buffer suicide behavior for both the general population and at-risk groups (Pietrzak et al., 2010; Kleiman & Beaver, 2013). Spirituality and psychological well-being, both separately and combined, can serve as resilience factors which will help lesbian and gay Filipinos in dealing with their adversities and overcoming their struggles (Johnson, Wood, Gooding, Taylor, & Tarrier, 2011).

The current study had several limitations that should be taken into consideration when interpreting the results and be addressed in the future research. First, given that a snowball sampling method was used, it is not clear as to what magnitude does the current findings generalize to the larger population. Future researchers are encouraged to obtain a larger sample size and include respondents from other geographic regions in the Philippines in order to increase its generalizability. In addition, it is also important to include a more religiously diverse population, since majority of the participants of the present study are affiliated with Catholicism. Second, despite YAFS' definition of youth which ranges from 15 to 24 years old, the present sample did not include those who are under 18. This is to protect the minors who are not out from the threats of being exposed to their family or friends. However, even if there would be difficulties in obtaining informed consent and gathering data, it is still suggested that future researchers study younger lesbian and gay age group to determine if there would be differences in the relationships of the variables in comparison to the older age group. Third, only the total scores of the variables were used. Future researchers may replicate the study by delving into the relationships of the specific subscales of the variables, leading to a more expounded and better understanding of the influence of the subscales with each other. The subscales can reveal different relationships among the participants. Lastly, the study made use of only self-report measures of psychological well-being, spirituality, and suicide behavior, which may not be as reliable as qualitive measures. Future studies could look into the biological markers of suicidality in young lesbian and gay populations due to the limited literature on their biological and psychopharmacological processes.

Despite these limitations, the present study had several remarkable strengths. It provides an incendiary effort at understanding the degree to which psychological well-being and spirituality can protect lesbian and gay Filipinos towards suicidality. Psychological well-being

is commonly measured as the absence of mental illnesses only while spirituality is a frequently disregarded source of resiliency in sexual minority youth. Moreover, it is also essential that future studies to examine potential moderators of these relationships in order to gain more information on how these processes affect one another. The findings of the study also contribute to a wider understanding of mental health in young lesbian and gay Filipinos and to the overall risk and protective factor literature. An awareness and better understanding of the unique stressors that lesbian and gay youth experience and the positive resources that can protect them against psychological distress can aid mental health practitioners in developing and implementing intervention programs to these specific populations. Mental health practitioners may find themselves dealing with lesbian and gay clients in the midst of their religious and sexual identity conflict or are exhibiting suicidal tendencies because of minority stress. By gaining an understanding of how the research variables work together, mental health practitioners can develop increased insight into their clients' situation and goals for therapy. This would also lead to increased sensitivity, empathy, and objectivity towards these clients in the course of their intervention. This guides mental health practitioners to be more competent in working with lesbian and gay clients.

In conclusion, the current study has found, among lesbian and gay Filipino youth, that spirituality and psychological well-being are possible buffers against suicide behavior. Moreover, psychological well-being buffers suicide behavior at higher levels compared to spirituality, making it as a more effective resiliency factor. These findings appear to be helpful in understanding the role played by psychological well-being and spirituality as protective factors in the lives of young lesbian and gay Filipinos.

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Corresponding Author: Christine Guianne Ramos
Email: cgmupasramos@gmail.com

Social Media Use as Self-Therapy or Alternative Mental Help-Seeking Behavior

Bryan O. Gere, University of Maryland Eastern Shore, USA
Nahal Salimi, Northern Illinois University, USA
Angela Anima-Korang, East Texas Baptist University, USA

Abstract

Social media use is pervasive in many developed societies. Social Media is a form of digital media and expansive platform that allows users to share information, and socialize with other users (Anderson & Jiang, 2018). There are multiple formats of social media being used by society today. Social networking has become such a large part of the everyday life of people such that many individuals repeatedly post or check their social media accounts. College students use social media to create virtual friendships and relationships that allow them to share information about their personal lives. Information that is shared as posts on social media including personal problems and struggles often elicit both positive and negative feedback (comments and likes). Thus, social media use has caused profound changes in the way people share their emotional and psychological concerns. It is unclear however, whether young adults' use of social media to share their personal problems constitute self-therapy and impact the tendency to seek formal mental health services. This paper examines perceptions on social media use, self-therapy and mental health seeking behavior among college students, as well as factors that mediate this behavior. It also explores the implications for mental health help seeking behavior among this group and proposes best practices for providing them with relevant and timely information.

Keywords: social media, self-therapy, mental help, help seeking

Introduction

Globally, it has been estimated that one fifth of all college students experience mental health issues (Auerbach, 2016). In the United States, it was reported in 2008 that more than 1 in 3 college student experience depression and suicide ideation (American College Health Association, 2008). Blanco et al. (2008) also found that almost half of college students met the DSM-IV criteria for at least one mental disorder in the previous year, including 18% for a personality disorder, 12% for an anxiety disorder, and 11% for a mood disorder. In another study, it was also reported that 6% of undergraduate students and 4% of graduate students reported having suicide ideation (Drum et al., 2009). Lipsen, Lattie and Eisenberg (2018) found that the rates of diagnosis of mental health in college students increased from 22% in 2007 to 36% in 2017. The study also reported that treatment also increased from 19% to 34% within the same period. In a more recent study, it was found that 17% of students showed positive signs of depression, 9% showed signs for major depression, and 10% of demonstrated panic or generalized anxiety disorder (Hunt, 2010).

Mental health problems among college students are an impediment to academic performance and program completion. According to the National Alliance on Mental Illness (NAMI, 2012), 64 percent of young adults in college dropped out due to a mental health problem. Despite the high prevalence of mental health problems amongst college students, the stigma of help-seeking remains a barrier to those who are in real need of professional help or support.

Social networking sites have become increasingly popular in recent times as platforms for sharing different personal information including those related to personal health and well-being (Sauter, 2013). Interaction and friendship are initiated and sustained with other users by commenting on their posts and establishing conversation outgroups. The pervasive nature of social media has placed individuals in a state of constant exposure to the opinions of others. Students in need of input, and support to improve their personal wellbeing may thus consider social media use as an innovative approach to explore solutions for their mental health issues.

Theoretical Framework

The theoretical model for this study is based on both the theory of planned behavior/ reasoned action and the health beliefs behavior model (Ajzen, 1991; Becker, 1974; Czyz, Horwitz, Eisenberg, Kramer, & King, 2013; Fishbein & Azjen, 1967). The theory of planned behavior/reason action posits that an individual's decision to engage in a particular behavior is based on the outcomes the individual expects will come as a result of performing the behavior. This model also holds rational decisions are the result of intentions, attitudes, subjective norms and perceived behavioral control (Ajzen, 1991). The health belief model predicts that individuals who perceive that they are susceptible to a particular health problem will engage in behaviors to reduce their risk of developing the health problem. Within the context of mental health help seeking via the use of social media platforms, attitudes subjective norms and perceive behavioral control may engender psychological rewards that sustain behaviors that encourage the use of social media platforms (Bohon, 2016). Associatively, an understanding of individuals' assessment of perceived susceptibility, severity, costs, barriers and benefits, can provide insight into why college students may consider social media platforms to be viable alternatives to receive help on mental health.

Social Media Use among College Students

The rise of technology and its ubiquitous characteristic has varying implications for the youth who use them. It has helped increase popularity of social media sites and with it, the number of people who use it. Social media use among young adults, particularly among college students has increased exponentially, along with this increased popularity of social media sites. These platforms have become one of the core mediums for communication among this group, promoting virtual communication while also reinforcing physical boundaries (Peluchette & Karl, 2008). For college students, social media is often an extension of their physical self, allowing them to connect to others who might share similar experiences (NSBA, 2007). It is not uncommon to see groups of students on campuses sitting in close proximity to each other while simultaneously physically removed from each other, with everyone being on a different social media profile on their phones.

According to the Pew Research Center's 2018 report on teenagers' social media use and anxiety, a significant number of students (over 90%) have access to smartphones and report using them daily for varying purposes, often to increase their social capital, including aiding in academic research, communicating with family and friends, keeping up with tasks, and gaining access to information (Pew Research Center, 2018). The intended outcome however can be oppositional, decreasing rather than increasing their social capital. Students can become withdrawn and dissociated from their physical environment and reality, creating an onset of mental health issues including depression and anxiety (Caplan, 2002; Valkenburg, Peter, & Schouten, 2006). This is similar to the findings in the 2018 report from the Center for Disease Prevention and Control on youth and social media use which found that teenagers who constantly use social media including Twitter, Instagram, Snapchat, YouTube and Facebook have a higher likelihood to report being depressed or feeling isolation from their peers (Data and Statistics on Children's Mental Health CDC, 2018).

In another similar study, Bagroy, Kumaraguru, and De Choudhury (2017) found that college students' use of social media can be either affirmative (positive reinforcement for existing beliefs and conditions) or can be detrimental, exacerbating issues such as anxiety, depression, low self-esteem, sleep deprivation, and negative body image. Students already experience high levels of stress from academics, and often resort to social media to moderate effects of stress.

Historically, research has shown that technology and social media use can have both positive and negative ramifications. On one hand, it aides in increasing social status and can have positive gratifications for users. It increases social support by enhancing group cohesiveness where users seek similar people to interact with. It also helps to create and maintain relationships and share social information and can aide in collaborative learning for academic success. However, social media overuse can result in decreased academic performance and increased mental health problems, resulting from the repeated use of social media to cope with stress and cope with other issues, rather than seeking help from qualified personnel (Al-Rahmi & Othman, 2013; Dunne, Lawlor, & Rowley, 2010; LaRose & Eastin, 2004; Wang, Wang, Gaskin, & Wang, 2015; Whiting & Williams, 2013).

Help Seeking Behavior among College Students

Research shows that mental health problems are highly prevalent among college students (Auerbach et al., 2016; Eisenberg, Downs, Golberstein, & Zivin, 2009; Selkie, Kota, Chan, &

Moreno, 2015). These mental health problems consequently affects students' academic success as well as their relationships with family and friends (Hunt & Eisenberg, 2010, Kadison, & DiGeronimo, 2004, Kessler et al., 2005, Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). According to several research findings, factors such as interpersonal relationships, sexuality, identity development, academic pressures, extracurricular demands, roommate problems, parental expectations, and racial and cultural differences are the most commonplace stress factors among college students (Beiter et al., 2015; Kadison & DiGeronimo, 2004, Mahmoud, Staten, Lennie, & Hall, 2015). Today, we also know that individuals with severe mental health disorder are more at risk of developing substance use or dependence compared to the general population (Lehman & Dixon, 2016; Routledge; Weitzman, 2004; Zeanah, 2018). For instance, Blanco et al. (2008) compared the prevalence of alcohol use disorders between college students and their same-age peers. His findings indicated that the prevalence of alcohol use disorders was significantly high among college students however; the prevalence use of drug and nicotine was low.

Results of two national surveys indicated that there is an increasing prevalence of mental illness among college students. Results of the two national surveys illustrated that there is an increasing prevalence of mental illness among students. In the first survey conducted in 2008, 95% of campus psychological counseling centers directors reported a significant increase in severe psychological problems among their students (Gallagher, 2009). The result of the second national survey, done in 2008 by the National College Health Association illustrated an increased proportion of depression diagnosis among their students; 15% since 2000.

Most university and college campus settings in the United States offer emotional and mental health care services, however, not many students seek for help or make actual contact with professionals in the campus (Blanco et al., 2008). National policymakers have identified the stigma surrounding mental health and mental illness as an important barrier for college students who are seeking mental health care (Clement, 2015; Drum et al., 2009; Gulliver, Griffiths, & Christensen, 2010). Gender and age also have been reported as having an influence on intentions to seek professional mental health help. Findings show that women are more likely to exhibit positive attitudes towards seeking mental health professionals than men and older adults exhibited more favorable intentions to seek help from primary care physicians than younger adults (Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Mackenzie, Gekoski, & Knox, 2006).

Despite current legislation and disability rights, stigma and negative attitudes toward seeking help from professionals are still further barriers to professional help-seeking. College students, in particular, are so concerned about being seen as "mental" by their peers and others. This consequently decrease the intention to seek help among this population (Rickwood, Deane, & Wilson, 2007). In this regard, Drum et al. (2009) conducted a national research using an anonymous web-based survey to provide insight about the spectrum of suicidal thought, intent, and action among 26,000 undergraduate and graduate students at 70 colleges and universities. They also examined the student's formal and informal patterns of help-seeking. Specifically, they asked those students who considered attempting suicide in the last 12 months if they ever shared their suicidal thoughts with anyone. The result indicated that 46% of undergraduate and 47% of graduate students preferred not to tell anyone about their suicidal thoughts because they were afraid to be judged by their peers. However, those who disclosed their suicidal thoughts with a friend, or a peer found it tremendously helpful. Drum et al. (2009) reported no significant correlation between gender and intensity of suicidal thought.

In a related study, Eisenberg, Downs, Golberstein, and Zivin, (2009) conducted an empirical study associated with help-seeking behavior among 5,555 college students from a diverse set of 13 universities. Findings showed that both public stigma and student's own stigmatizing attitudes shape their beliefs towards mental health help-seeking. The researchers also found that perceived public stigma was noticeably higher than personal stigma and personal stigma was significantly and negatively associated with measures of help-seeking among college students. In terms of socioeconomic factors, they reported that male, younger, Asian, international, more religious and poor income as those with a high level of personal stigma.

In another study done by Gaddis, Ramirez, and Hernandez (2018) using data from over 60,000 students in 70 U.S College and University between 2005 and 2009 found that there is a high level of stigma toward mental health, and seeking for mental health treatments that consequently led to less treatment-seeking behavior among students. They also found that school-level stigma was negatively associated with student's self-reports or disclosure of having suicidal ideation and self-injury. Moreover, school-level stigma is negatively associated with medication use, counseling and therapy visits, and to a lesser degree, informal support.

Multiple research shows that stigma is not an only barrier that prevents college students to seek for mental health care. Other factors are: lack of time, privacy concerns, a lack of a perceived need for help, limited awareness or knowledge about available services or insurance coverage, skepticism about treatment effectiveness, lack of emotional openness, and financial constraints (Eisenberg, Downs, Golberstein, & Zivin, 2009; Givens, & Tjia, 2002; Hunt, & Eisenberg, 2010; Tjia, Givens & Shea, 2005).

The past decade has witnessed many new advances in the Internet and the popularity of online resources and social media particularly among college students. According to recent information released by Statista, The United States has close to 275 million internet users in 2018 and this number is estimated to continue to grow to 310.1 million in 2022. As reported by the United States Census Bureau, Department of Commerce Economics and Statistical Administrations in the year 2016, 89 percent of households had a computer at home, and they had access to the internet. According to the Pew Research Center (2018), Facebook and Instagram are the most popular social network websites among Americans (68% Facebook and 35% Instagram). Social media has gained popularity over the last decade has become one of the most convenient methods of communication, creating and sustaining relationships with others (Boyd & Ellison, 2007, Sponcil & Gitimu, 2013) however, research shows that not all of the Facebook friends are considered as genuine or trustworthy in a crisis (Fan, & Gordon, 2014;Pew Research Center 2018). College students constitute the largest number of social media users, and use social media for social interaction, information seeking, entertainment, relaxation, communicatory utility, expression of opinion, information sharing, and surveillance about others (Pempek, Yermolayeva, & Calvert, 2008; Sponcil & Gitimu, 2013).

In this modern world, social networks play an important role in the help-seeking process. Several research findings have suggested that the patterns of help-seeking behavior are influenced by whom the sufferer consults with at first and when deciding whether to seek for mental or medical care (Birnbaum, Candan, Libby, Pascucci, & Kane, 2016; Calnan, 1983). The help-seeking literature has emphasized on the important role of family and friends in seeking help for mental health issues (Rickwood, Deane, & Wilson, 2007). When young people identify a mental health issue, they usually prefer informal support rather than professional health care (Rickwood et al., 2007). College students might find social media such as Facebook or Instagram a safe place that allows them to freely disclose their needs and feelings without

being worried about being recognized or stigmatized by others. They might perceive this type of informal way of seeking help to safeguard themselves against the potential public stigma or negative attitudes in the real world.

Further, although research has yet to investigate the influences and effectiveness of online mental health seeking, this method of help seeking is growing rapidly particularly among young people (Edwards-Hart, & Chester, 2010; Naslund, Aschbrenner, Marsch, & Bartels, 2016). This might be because of the advantages and capabilities that online interventions can have to overcome many barriers to seek help, particularly as they relate to being concerned about confidentiality, anonymity, self-reliance, and stigma (Andersson, & Titov, 2014; Rickwood, Deane, & Wilson, 2007).

The purpose of the study was to examine whether college students consider social media to be a viable outlet to share their emotional and psychological problems. Additionally, the study also examines the extent to which the use of social media as an alternative form of help seeking for mental health or constitutes self-therapy. The following research questions were addressed:

> RQ 1: Do college students consider social media a viable outlet to share their personal problems to receive counsel or advice?
> RQ 2: Is there a statistically significant relationship between college student's social media use to share personal information, receiving advice and mental health help seeking behavior?
> RQ3. Do demographic factors such as gender and level of education moderate the relationship between sharing of personal information on social media and help seeking behavior?

Methods

Participants
Undergraduate and graduate college students enrolled at a large Historically Black University (HBCU) in the southeastern region of the U.S were surveyed for the study. This demographic was chosen because current research suggests that majority of college students use social media on a daily basis (Pew Research Center, 2018). Additionally, students from this population also experience a myriad of traumatic issues, leading to mental health complications (Brown, 2015) and might also experience barriers, perceived or otherwise, to receiving care (Barksdale & Molock, 2009). Previous research (Balcazar, Suarez-Balcazar, Taylor-Ritzler, & Keys, 2010; Cooper et. al., 2003; Marini, Graf, & Millington, 2011; Matthews, Corrigan, Smith, & Aranda, 2006; Salimi, 2018; Yuker, 1988) have also implicated negative disability attitudes (stigma and discrimination) as barriers to mental health seeking. African Americans in general have been reported to have strong stigma and discrimination surrounding mental illnesses and have a low tendency towards receiving treatment (Cooper et. al., 2003; Matthews et al., 2006). The sample for the study comprised 143 participants; 52 graduate students and 91 undergraduate students. Seventy-nine participants were female, whereas 64 participants were male. Further, 20 participants identified as white, 5 participants as Hispanic, 5 participants as Asian, 84 participants as black or African and 34 as multiracial. The age of participants ranged from 17 to 35 years (M = 23.9, SD = 4.62).

Instrument
A survey was developed to collect data for the study. The survey contained 10 questions. There were two demographic questions (e.g., educational status and gender), five social media use

questions (e.g., social media platform, frequency of use, tendency to share emotional problems on social media, tendency to receive advice/counsel or suggestions from friends on social media) and three questions on mental health seeking behavior questions. The three mental health seeking questions were adopted from the Mental Help Seeking Intention Scale (MHSIS). Two of the authors, and two graduate students reviewed the instrument for evidence of validity. The review focused on the followings: (1) clarity of instructions, (2) clarity in wording, (3) relevance of the items, (4) absence of biased words and phrases, (5) proper formatting of items, and (6) use of Standard English.

Procedures

Approval and support for the study was obtained from the Institutional Review Board of the University. Following approval, participants were recruited through flyers posted on departmental notice boards. Information sessions were organized to discuss the purpose of the study, confidentiality, and the voluntary nature of participation. Interested students picked up a survey packet from a designated mailbox and dropped them off at the same mailbox after completion. Each survey packet contained an informed consent, and the survey questionnaire. The surveys did not collect any personal or identifying information. No financial incentive was provided to students, for participation in the study.

Data Analysis

Data from the completed surveys were extracted into the Statistical Package for the Social Sciences (SPSS 25.0) program for analyses. Descriptive statistics such as simple percentages and averages were used for participants' demographic variables. Regression analyses were completed to answer the research questions.

Results

RQ 1: Do college students consider social media as a viable outlet to share their personal problems to receive counsel or advice.

Table 1. shows participants responses on sharing personal or emotional concerns to receive counsel or advice. The result of the descriptive statistics reveals that only 4(15%) of male participants consider social media to be an extremely likely outlet to share their personal problems to receive counsel or advice. In comparison, 26(22.2 %) of the female respondents considered social media as an extremely likely viable means to share their personal problems to receive counsel or advice. Relative to educational levels, 8(11%) of graduate students are very extremely likely to share their personal experiences on social media to receive counsel or advice compared to 22(30%). This indicates that undergraduates are almost three times likely to share their personal or emotional concerns on social media to receive counsel or advice. Additionally, the results also indicate that overall, approximately 21 percent of the sample indicate a willingness to share personal or emotional concerns on social media to receive counsel or advice.

		Slightly	Moderately	Very Extremely	Total
GENDER	Male	0(0.0%)	22(84.6%	4(15.4%)	26(100.0%)
	Female	2(1.7%)	89(76.1%)	26(22.2%)	117(100.0%)
Total		2(1.4%)	111(77.6%)	30(21.0%)	143(100.0%)
EDU LEVEL	Graduates	2(2.8%)	61(85.9%)	8(11.3%)	71(100.0%)
	Undergraduates	0(0.0%)	50(69.4%)	22(30.6%)	72(100.0%)
Total		2(1.4%)	111(77.6%)	30(21.0%)	143(100.0%

Table 1. Sharing Personal Problems on Social Media to Receive Counsel or Advice

RQ 2: Is there a statistically significant relationship between college student's social media use to share personal information, receiving advice and mental health help seeking behavior?

Multiple regression analysis was used to test if the extent of sharing personal problems and accepting or receiving advice on social media significantly predicted participants 'seeking of mental health services. Table 2 shows the results of the regression analyses, and the results indicate the two predictors explained 53.9% of the variance ($R^2 = .29$, F (2,140) = 28.60, p<.01). It was found that sharing personal or emotional problems significantly predicted seeking counseling services ($\beta = .26$, p< .001), as did receiving advice ($\beta = -.53$, p< .001). Specifically, whereas the results indicate that the more college students shared on their personal or emotional problems or received advice from social media, the less likely they are in seeking mental health services.

ANOVAᵃ						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.330	2	11.165	28.603	.000ᵇ
	Residual	54.649	140	.390		
	Total	76.979	142			
a. Dependent Variable: SEEKING MENTAL HEALTH SERVICES						
b. Predictors: (Constant), EXTENT TO WHICH THEY WOULD ACCEPT ADVISE, SHARING PERSONAL OR EMOTIONAL PROBLEM ON SOCIAL MEDIA						

Table 2. Relationship between sharing on social media and use of mental health services

RQ3. Do demographic factors such as gender, age and level of education moderate the relationship between sharing of personal information on social media and help seeking behavior?

The results of the regression indicated the overall model was significant, $R^2 = .148$, F (7, 135) = 3.36, p = .002. As shown in Table 3, it was found that there was also a significant interaction between education level and sharing on social media when predicting seeking counseling services (b = -1.505, t (135) = -3.754, p = .000). Also, there was a significant main effect for educational level on seeking of mental health services (b = 1.65, t (135) = 3.30, p =.001). This suggests that the higher the educational level of students, the less level they are on share personal information on social media, and the more likely they are to seek counseling services. Neither gender nor age or their interactions with sharing on social media were significant

predictors of seeking mental health services. Results indicated that there was no significant interaction between age and sharing on social media when predicting seeking mental health services (b = .439, t (135) = .519, p = .60). There was also no significant main effect for age on seeking mental health services (b = .120, t (135) = .33, p = .74). Similarly, there was no significant interaction between gender and sharing on social media when predicting seeking mental health services (b = -.439, t (135) = .519, p = .60). There was also no significant main effect for age on seeking mental health services (b = -.237, t (135) = -.387, p = .70).

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.845	2.373		-.777	.438
	Gender	-.452	1.167	-.237	-.387	.699
	Edu level	2.426	.734	1.653	3.303	.001
	Age	.019	.058	.120	.332	.741
	Sharing of personal or emotional problem on social media	1.242	.845	1.052	1.471	.144
	Gender Sharing	.206	.397	.439	.519	.604
	Age Sharing	-.004	.021	-.111	-.203	.839
	Edu. level Sharing	-.939	.250	-1.505	-3.754	.000
a. Dependent Variable: SEEKING MENTAL HEALTH SERVICES						

Table 3: Moderated regression analysis of demographical factors with sharing of personal information on social media and help seeking behavior

Discussion

This study examined social media use as self-therapy or alternative mental help-seeking behavior among college students. The results of the study showed that a moderate amount of college students use social media to share their personal concerns as a means to elicit advice or counsel. These results confirm previous findings that online help-seeking behavior is becoming increasingly common among young adults (Edwards-Hart, & Chester, 2010; Naslund et al., 2016). Fullagar (2005) notes that the young people including college students prefer to seek help online via social media due to the affective nature of help-seeking and the anonymity a virtual environment provides. Sharing on social media may be preferred because it provides college students the opportunity to interact without the judgement and surveillance of adults (McDermott & Roen, 2016). The results also indicate differences in the sharing of personal concerns on social media to elicit help between gender and academic levels. This is consistent with previous studies that female, and undergraduate college students are more likely to seek help compared to their male counterparts or graduate students (Vidourek, King, Nabors, & Merianos, 2014). Graduate students may tend to minimize their mental health concerns due to fear of being judged or stigmatized (Vidourek et al., 2014).

The results of the study also show that the more college students shared on their personal or emotional problems or receive advice from social media, the less likely they are in seeking mental health services. This finding is also in agreement with Fullagar (2005) that overall, young people such as college students have a preference for sharing personal problems and

for input from peers (more like a community) with similar situations who share their experiences, or pain and not individuals considered as expert, but who can be considered to be an outsider to their reality. Social media sites may also become preferred sources of information, because of accessibility and the capacity of applications to convey immediacy similar to that of face to-face conversation.

Relative to demographic factors and their relationship to sharing on social media and seeking mental health services, the results showed that the higher the educational level of students, the less likely they are to share personal or emotional concerns on social media, and the more likely they are to seek counseling services. This finding is consistent with Wyatt and Oswalt (2013) that graduate students were more likely to seek out formal counseling services compared to undergraduate students. Perhaps, graduate students have less perceived barriers to help seeking compared to undergraduate students. Graduate students may be more mature, knowledgeable, and may have prior experiences with formal help seeking.

The overall findings are also significant relative to the response to mental health by African American students. The study findings are consistent with Lipson et al. (2018) that although African American students have a high of diagnosis of mental health disorders, but only 40% of students utilize formal mental health services due to perceived stigma and cultural perceptions about seeking mental health. Gaston et al. (2016) reported that a misconception among African Americans in general is that "Black Americans" are 'strong,' and do not need mental-health services (p. 686). Although African American college students unlike older generations are more likely to seek mental health services, many still struggle with the fear of being judged or misunderstood as a result of their mental illness, and prefer to rely on their own ability to deal with or seek out solutions to their mental illness (Camacho, 2016; Gaston et al., 2016).

Our study is not without limits. First, due to the use of a self-report measure (survey), students' attitudes toward use of formal mental health services may have been misrepresented or underreported by respondents. Second, the response categories on the survey instrument may appear atypical (extreme to moderate) to describe the degree of severity as it may appear that there is a too much of a gap between moderate and severe. Third, contextual factors and knowledge and experiences with mental health services could also be a contributing factor.

Implications for Future Research

This study has significant theoretical and practical implications for mental health, healthcare, and public health professionals as well as college administrative staff in charge of ensuring that students are receiving the care they need. It also has implications for policies surrounding mental health service provision in colleges. College students, especially the undergraduate population, represents a group experiencing the onset of mental health problems. The college campus is therefore one of the optimal environments for identifying, treating and preventing mental health issues (Bruffaerts et. al, 2018). When policy makers and college administrators understand this, it can help to foster mental health policies on campus that have lasting implications for the students. Policies could include identity protection for students, making it easier for them to take the first step to seeking and receiving care without the added burden of thinking about how their peers may perceive them; it makes help seeking that much easier and more personal for them (Eisenberg, Golberstein, & Hunt, 2009; Stone & McMichael, 1996).

Again, while the definition of health has shifted from the traditional World Health Organization's "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity," current definitions incorporate the ability for oneself to adapt and self-manage social, physical, and emotional challenges, given the current social media era we are in (Callahan, 1973; Huber et. al, 2011). Young people are increasing becoming more digitized, using technology and social media in all aspects of their lives from networking to seeking social support and providing support to others (Al-Rahmi & Othman, 2013). It is imperative to meet them at this level, therefore as an extension of this study, future research can focus on the motivations for using technology among college students and the gratifications gained from it, to determine how to provide the right information for students who use technology to seek help for mental health issues.

Health professionals providing services on college campuses can incorporate into their service provision plans, the results of this study which shows that students at different levels exhibit different reactions to seeking information. Undergraduate students who are more likely to share their problems and seek help online, are also more likely to be dependent on their smartphones, creating a toxic dependent relationship. On the other hand, graduate students who are more likely to use services provided on campus, are also more likely to interact with personnel rather than people on social media. This gives mental health professionals on college campuses a unique advantage to incorporate findings to create targeted health and media campaigns for undergraduate and graduate students that will have a deeper impact on them. (Bian & Leung, 2015).

Future research can therefore focus on other behavioral and social determinants that contribute to the mental health problems among this particular group, taking into consideration that the college campus in itself, presents challenges for mental health. This could include stigma and discrimination associated with seeking help for mental health issues, as well as the availability of customized services to meet students' needs. For instance, health professionals can create virtual help communities that targets students who are more comfortable with that option and provide safe spaces for students to share their problems and get the help they need. By understanding the different characteristics college students represent, it can help to foster engaging and less negative environments to help decrease the occurrence of mental health stigma and discrimination. This can motivate more students to seek professional help (Blanco et al., 2008).

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Corresponding author: Bryan O. Gere
Contact email: mmgordon@nwosu.edu

Psychological Predictors of Facebook Addiction Tendencies among Filipino Millennials in Metro Manila

Debbie Marie Bais
Marc Eric S. Reyes
University of Santo Tomas, the Philippines

Abstract

With the widespread popularity of social media, particularly Facebook among millennials, this generation may be at risk for developing Facebook Addiction. This study utilized a cross-sectional predictive design to predict the variance of the psychological predictors, in relation to Facebook addiction tendencies among 1,000 Filipino millennials, age ranges from 18-34 years old from different universities and companies within Metro Manila through convenience sampling. Regression analysis was used to determine if Facebook addiction can be predicted by the scores on the measures of depression, self-esteem, Fear of Missing Out (FoMO), social comparison and neuroticism. Results indicated that there is no significant difference in terms of Facebook addiction tendencies between male and female participants. Additionally, Pearson's correlations revealed that depression and FoMo has significant positive relationship with Facebook addiction tendencies while self-esteem and social comparison showed negative influence with having tendencies towards Facebook addiction. Neuroticism had no significant relationship with Facebook addiction. Regression analysis model delineated that among the psychological predictors, only Depression and FoMO could possibly predict Facebook addiction tendencies. Results suggest that the more depressed the individual is, the more likely they exhibit Facebook addiction tendencies and the higher the individual experiences FoMO, the more likely he develops Facebook addiction.

Keywords: Facebook addiction, millennials, social media, social networking sites

Introduction

In our digital world today, where everything seems to be fast paced in just one click, it is an undeniable fact that the Internet has become an indispensable part of our everyday lives. With a wide array of functions, it has grown into a powerful tool that influences and connects people, allowing us to get real-time updates and easy access to a vast source of information. Indeed, the internet has redefined the way people relate and socialize, particularly since the advent of social media. Facebook is considered as the most popular and most widely used social media platform worldwide as of January 2018 with its 2.2 billion active monthly users according to Statista (2018).

Philippines was dubbed as the "Social Networking Capital" of the world by Russel (2011) topping the world's social media usage, primarily Facebook, with 71 million Facebook users (Napoleon Cat, 2019), spending an average of 4 hours and 12 minutes daily using social networking sites (Kemp, 2019). Filipinos are known for being sociable and for their close familial ties (Estares, 2019), According to Saito (2010), a typical trait among Filipinos is "*Pakikisama*" which refers to getting along with others or forming harmonious interpersonal relationship with each other In the Philippines, social networking sites serves as a platform for connectivity to establish and reinforce relationships (Estares, 2019).

The Majority of the total Facebook users are millennials or individuals from ages 18-34. In Asia, it was reported that out of 457.4 million total Facebook accounts, 369.8 million or approximately 81% of Facebook were owned by millennials (Kemp, 2015). Millennials greatly consider social media as an important tool for sharing their interests, emotions and activities in the online world. Indeed, it has become a novel channel for communication and distribution of information (Jambulingam, Selvarajah & Thuraisingam, 2014). With these studies in mind, it can be suggested that those who belong to the millennial generation may be at risk of developing Facebook addiction since a large percentage of users emanates from this group (Koc & Gulyagci, 2013; Marcial, 2013).

According to Open Access Government (2019), millennials are one of the most anxious and depressed generations and this can be attributed to their school and work-related stress, uncertainty for the future, and their struggle with fitting into a social media driven world. In fact, in a 2018 report by the Blue Cross Blue Shield, it was revealed that the number of clinically diagnosed depression among Millennials in the United States had risen by 47 percent in 2013 (Curley, 2019). The Royal Society for Public Health claimed that the tremendous rise in numbers of Millennials having mental health crisis may also be fueled by social media (Open Access Government, 2019). Moreover, they added that millennials who spend more than 2 hours daily on using social media are more likely to report issues on mental health such as anxiety and depression. Since millennials were the first generation to grow up in the digital and social media era, they are also being constantly being exposed to the lives of others through social networking sites and thus, leading them to compare their lives to others (Singh, as cited in Curley, 2019).

The millennial generation has been found to be active users of social media and social networking sites (Way, 2015). Studies show that the FoMO phenomenon also becomes widespread among users due to easier access to connect online almost anywhere. In a study by Harris Insights & Analytics, it has been reported that among American millennials, 7 in 10 or 69 percent experience FoMO. FoMO drives millennials to also show up, share and engage in

the online world in today's digital age where people broadcast their lives and experiences on social media (Lombardo, 2019).

Lyons and Kuron (2014) reported that there is a rising level of neuroticism, self-confidence and self-assuredness among millennials. Millennials are described as the generation who grew-up during the "self-esteem movement" wherein self-esteem was built on values such as physical beauty, prominence through entitlement, achievement, superiority and were taught that self-love is the greatest love of all (Twenge, 2014). Moreover, millennials have difficulty in expressing feelings and dealing with negative emotions and may have lack resilience which can be attributed to the type of parenting style they grew-up with, particularly the over-controlling parenting, which most likely interfered with the development of their autonomy, competence and emotional strength (Heck, 2015).

The Uses and Gratification theory by Katz, Blumler and Gurevitch (1974) is grounded on the assumption that people select media and content to satisfy psychological and social needs and wants. In this theory, Katz et al. (1974) identified five major needs: (1) personal integrative needs (enhance credibility, status), (2) affective needs (emotion, pleasure, feelings), (3) cognitive needs (acquire information, knowledge), (4) tension release needs (escape & diversion) and (5) social integrative needs (interact with family & friends). Similarly, the Dual-Factor Model of Facebook Use devised by Hofmann and Nadkarni (2013) explained the two motivational factors that drive an individual to use Facebook as a specific type of social networking site :(1) the need to belong, which refers to the intrinsic drive to affiliate with others and gain social acceptance and (2) the need for self-presentation, which relates to the continuous process of impression management (Hofmann & Nadkarni, 2013, p.5). The need to belong according to Baumeister and Leary (1995) is an essential human need and universal among all humans which requires regular meaningful interactions with other people to sustain one's optimum well-being. Facebook can be a helpful tool to alleviate feelings of social disconnection since it offers an ideal venue to address an individual's need to belong through its features that enable users to gather information and interact with their friends online with the possibility of obtaining approval from others (Sheldon, Abad, & Hirsch, 2011).The second motivational need identified by Hofmann and Nadkarni (2013) is the need for self-presentation. Michikyan, Dennis, and Subrahmanyam (as cited in Uhlir, 2016, p.3) defined self- presentation as – the behavior used to present information about the self to a real or imagined audience. They also added that one's purpose for self-presentation may include exploration, deception or impressing people. According to Hofmann and Nadkarni (2013), this particular social need seems to direct the individual's specific behaviors in presenting themselves through their Facebook profiles, such as their choice of profile and cover photos which are in line with their aimed impression formation.

Previous studies have explored different variables which could be related and associated with Facebook addiction tendencies. In her study, Sherman (2011) sought to determine which personality factor has the highest significance level for Facebook withdrawal, devotion and addiction by using the NEO personality inventory. Results revealed that among the five personality traits in the inventory, neuroticism had the most significance to high or frequent Facebook usage. Sherman (2011) concluded that since neuroticists are socially anxious, they most likely prefer online socializations such as in social networking sites instead of socializing on a face to face setting. Moreover, Steggink and Jansma (2015) investigated if psychological variables (such as social anxiety, loneliness, and depression), gender and Facebook usage types have direct and indirect relationships to Facebook Addiction in Netherlands. Findings revealed that strong predictors of Facebook addiction include social loneliness and Facebook anxiety.

Facebook anxiety may be a construct similar to FoMO. Findings from a study of Facebook users in Poland led by Reuters Health suggests as well that depression poses as a stronger predictor of vulnerability to becoming dependent on using social media (Lehman, 2015) since it serves as an ideal platform for depressed people to passively socialize with others, escape from their symptoms and disconnect from their own feelings (Koc & Gulyagci, 2013).

Another psychological variable that could possibly relate to higher Facebook usage and Facebook addiction tendencies is low self-esteem. Individuals who were low in self-esteem were linked with more time spent of Facebook per session and a greater number of Facebook logins per day (Mehdizadeh, 2010). People tend use Facebook to satisfy their two basic social needs: the need to belong and the need for self-presentation (Hofmann & Nadkarni, 2013). Lastly, since social networking sites such as Facebook offer a rich information about other's lives, social comparison is more likely to occur, Vogel, Rose, Okdie, Eckles, & Franz, (2015) discovered that individuals who scored high in Social Comparison Orientation (SCO) appeared to be heavy users of Facebook compared to those with low SCO. According to Buunk and Gibbons (2007), individuals with high scores in SCO are uncertain about themselves thus may use the rich source of information in Facebook for social comparison for self-evaluation and self-improvement (Vogel, et al., 2015).

Gender and Facebook Addiction
The majority of prior studies show that women spent more time on Facebook and thus, are more prone to develop Facebook Addiction (Sherman, 2011; Thompson and Lougheed, 2012; Hofmann & Nadkarni, 2013; Steggink, & Jansma, 2015). In a survey conducted by Pew Research Center in the US, they determined that 77% of Facebook users were women while 66% of Facebook accounts belong to men (Duggan, 2015).

According to Mellema (2014) in Social Media Today, women tend to have 8% more friends than men, which can be an indication of women's willingness and ability to connect and communicate with more people in the online world. Thompson and Lougheed (2012) also discovered in their study that women were more likely to believe that they can express their feelings more easily on Facebook as compared to men. Villareal (2014) also posited that Social Networking Sites (SNS) like Facebook are generally acclaimed as gossip platforms and majority of women tend to get interested in knowing the gossips and the experiences of others, particularly if their own lives were lacking in excitement and satisfaction. In the Philippines, it was reported that majority of the Filipino Facebook users are women which accounted for 52.4% of its entire Facebook users since September 2019 (Napoleon Cat, 2019).

Despite the considerable amount of research that claim women are more avid Facebook users, a study by Balci and Gölcü (2013) conveyed opposing findings. In a study by Balci & Gölcü (2013) where they measured Facebook addiction in Selcuk University in Turkey, findings showed that male users are more susceptible to Facebook addiction.

Depression and Facebook Addiction
Loneliness and depression are directly proportional to the time spent on social networking sites such as Facebook, and vice versa (Muduli, 2015). Researchers suggested that individuals experiencing loneliness and depression most likely turn to social networking sites to search for companionship (Muduli, 2015), to seek relief by gaining social support from others (Ryan, 2015) and as a safe communication outlet for expressing their emotions (Lin, Tov & Qui, 2014; Moreno et al., 2011). Furthermore, Newman (2015) added that Social Media sites like

Facebook serve as an ideal platform for depressed people to passively socialize with others, escape from their symptoms and disconnect from their own feelings (Koc & Gulyagci, 2013).

Self-Esteem and Facebook Addiction
Individuals who were low in self-esteem were linked with more time spent of Facebook per session and a greater number of Facebook logins per day (Mehdizadeh, 2010). Social networking sites like Facebook foster a sense of belonging, their use can boost self- esteem, through selective representation or the careful selection of what to post in their personal accounts (Baran & Davis, 2014; Gonzales & Hancock, 2011). People with low self-esteem tend to see Facebook as a self-promotional tool leading them to use Facebook more. People who are experiencing low self-esteem may be able to enhance their self-worth if they receive "likes" or positive feedback on posted photos, videos or status updates (Attrill, 2015).

FoMO and Facebook Addiction
FoMO is defined as the "a pervasive apprehension that others might be having rewarding experiences from which one is absent, it is characterized by the desire to stay continually connected with what others are doing" (Przybylski, Murayama, DeHaan & Gladwell, 2013,p.1). FoMO directly results to Facebook addiction (Steggink & Jansma, 2015). In a study by Przybylski, et.al (2013), results revealed that FoMO was a strong explanation for SNS use, and people low in psychological needs satisfaction were more likely to experience FoMO. Moreover, FoMO is one of the main reasons why people are hooked in using multiple social networking sites and why users develop obsession and compulsion in checking their smart phones frequently even during face to face conversations (Wortham, 2011).

Social Comparison and Facebook Addiction
Corcoran, Crusius, and Mussweiler (2011) defined social comparisons as "comparisons between the self and others – are a fundamental psychological mechanism influencing people's judgments, experiences, and behavior" (p.119). In Leon Festinger's Social Comparison Theory (1954), he postulated that the basic drive that urges people to compare themselves to others is their need to maintain a stable and accurate view of themselves. Pempek, Yermolayeva, and Calvert (2009) cited that compared to actually posting content, majority of the Facebook users spent more time observing content on the online world. Social Networking Sites (SNS) are ideal platform for social comparison to take place (Pempek, Yermolayeva, & Calvert, 2009) since it provides information about others. Vogel, et al., (2015) discovered that individuals who scored high in SCO appeared to be heavy users of Facebook compared to those with low SCO. According to Buunk and Gibbons (2007), individuals with high scores in SCO are uncertain about themselves thus may use the rich source of information in Facebook for social comparison for self-evaluation and self-improvement (Vogel, et al., 2015).

Neuroticism and Facebook Addiction
Neuroticism is operationally defined by Costa and McCrae (1992) in terms of traits relating to irritability, anger, sadness, anxiety, worry, hostility, self-consciousness and vulnerability. According to Correa, et al. (2010) since neuroticism is associated to feelings of loneliness, it can be posited that anxious and nervous individuals log in to social networking sites to seek for social support and company from others. Facebook may be a perfect platform for neurotic people to meet their need for belongingness that is not satisfactorily met offline (Seidman, 2013). Sherman (2011) also implied that since individuals with high levels of neuroticism are anxious and undergo levels of depression, it can be reasonable to conclude that they feel more comfortable socializing outside of a face-to-face setting such as through the Internet.

The different findings from these researches have generated an interest in the present study to further investigate the phenomenon of Facebook addiction tendencies among millennials in the Philippine setting to investigate the possible dynamics involved in this generation's increased FB addiction tendency.

The results of this current study aim to provide a better understanding of whether Facebook Addiction tendencies exist among Filipino millennials. Our results intend to significantly add to the literature on the predictive relationship of certain psychological variables like depression, self-esteem, FoMO, social comparison and neuroticism to Facebook addiction. With the widespread popularity of social media particularly Facebook among millennials, it is essential to understand the psychological factors that influence an individual's Facebook (FB) use, specifically with those using FB at higher levels and to identify those who may be at risk of developing addictive tendencies. On the basis of majority of the findings from existing literature, the present study posited the following:

> H1: Women will have more Facebook addiction tendencies as compared to men.
> H2: Depression is positively related to Facebook addiction. Those with higher depression scores will have higher Facebook addiction tendencies.
> H3: Self-esteem is negatively related to Facebook addiction. Those with lower Self-esteem will have higher Facebook addiction tendencies.
> H4: FoMO is positively related to Facebook addiction. Those with higher FoMO scores will have higher Facebook addiction tendencies.
> H5: Social Comparison is positively related to Facebook addiction. Those with higher Social Comparison scores will have higher Facebook addiction tendencies.
> H6: Neuroticism is positively related to Facebook addiction. Those with higher Neuroticism scores will have higher Facebook addiction tendencies.
> H7: There will be significant prediction of Facebook addiction tendencies by depression, self-esteem, FoMO, social comparison and neuroticism.

Methodology

Research Design
This study is cross-sectional predictive in nature. The aim of this present study is to predict the variance of the independent variables (depression, self-esteem, FoMO, social comparison and neuroticism) in relation to the dependent variable (Facebook Addiction tendencies among Filipino millennials.

Participants
This study gathered 1000 Filipino millennials (246 males and 754 females) through convenience sampling. Samples included full-time senior high school, college students and employees who belong to the Millennial group, with ages ranging from 18-34 ($M= 17.58$, $SD= 2.47$) and a monthly active Facebook user (has logged in and visited Facebook in the last 30 days as of the date of measurement) in universities and companies within Metro Manila. Exclusion criteria are as follows: (1) millennials who will not give their informed consent, (3) have not logged in and visited their Facebook in the last 30 days as of the date of measurement, and (3) have invalid responses on any of the six research measures (e.g. no answer, double answers). No participant was excluded in the present study based on these criteria. Informed consent was obtained from all eligible participants prior to administration of tests. Table 1 shows the descriptive statistics of the participants in terms of gender, Facebook addiction tendencies and psychological variables.

	Gender				Total (*N*= 1000)	
	Male (*n*= 246)		Female (*n*= 754)			
	x̄	(SD)	x̄	(SD)	x̄	(SD)
Facebook Addiction tendencies	16.11	(4.22)	15.76	(4.48)	15.84	(4.42)
Depression	29.07	(16.49)	29.72	(17.27)	29.56	(17.08)
Self Esteem	18.77	(5.43)	17.19	(5.54)	17.58	(5.55)
Social Comparison	27.80	(4.67)	27.23	(5.11)	27.37	(5.01)
FoMO	25.78	(7.20)	26.00	(7.73)	25.34	(7.60)
Neuroticism	41.65	(5.91)	44.59	(5.86)	43.87	(6.01)

Table 1: Descriptive statistics of participants in terms of Gender, Facebook Addiction
         Tendencies and Psychological variables

Measures

Facebook Addiction. The Bergen Facebook Addiction Scale (BFAS) developed by Andreassen, Torsheim, Brunborg, and Pallesen (2012) is a 6-item questionnaire that asks participants to answer how often they have experienced the symptoms during the last year on 5 point Likert scale ranging from 1= very rarely to 5= very often. The developers suggested that scoring of 4= "often" or 5= "very often" on at least four of the six items in the test may indicate Facebook Addiction. Sample items include: *"Used Facebook in order to forget about personal problems?"* and *"Used Facebook so much that it has had a negative impact on your job/studies?"*. In the study conducted by Andreassen et. al. (2012), the original scale obtained an alpha-coefficient of 0.83 and a 3-week test-retest reliability coefficient of 0.82. In a study by Pontes (2016), the validity of BFAS was established via correlation with preference for online social interaction (POSI) (*r*=.27) as the predictor of Facebook addiction. In the present study, the BFAS has a Cronbach's alpha of 0.75.

Depression. Goldberg Depression Scale developed by Dr Ivan Goldberg (1993) is an 18-item self-administered screening test for depression. Participants are asked to indicate the extent to which each item is true, from 0= "not at all"; 1= "just a little"; 2= "somewhat"; 3= "moderately"; 4= "quite a lot"; and 5= "very much", in connection to how they felt and behaved during the past week (Goldberg, 1993). *"My future seems hopeless"* and *"I have lost interest in aspects of life that used to be important to me"* are some of the sample statements found in this scale. In their study testing the validation of Goldberg Depression Scale among academic and non-academic individuals, the total reliability of the test yielded for people with high school degree was 0.901, university degree was 0.861 and others was 0.817(Aminpoor, Afshinfar, Mostafaei, & Ostovar, 2012). The Goldberg Depression Scale had a Cronbach's alpha of 0.92 in the present study.

Self-Esteem. Rosenberg Self-Esteem Scale is a 10-item questionnaire composed of statements, which refer to general feelings about oneself (Rosenberg, 1965). Responses are scored on a 4-point Likert Scale, from "strongly agree" to "strongly disagree". This scale is scored by obtaining the total of all ten items. The scores range from 10 to 40, where higher scores signify more positive evaluations of oneself. Exploratory factor analysis revealed two constructs of: (i) positively worded items such as *"I feel that I have a number of good qualities"* and (ii) negatively worded items such as *"I feel I do not have much to be proud of"*. Rosenberg Self-

Esteem Scale has a Cronbach alpha of 0.86 (Vermillion & Dodder, 2007). According to Rosenberg (1965), RSE has internal consistency which ranges from 0.77 to 0.88 and test-retest reliability ranges from 0.82 to 0.85. The whole scale had a Cronbach's alpha of 0.87 in this present study.

Social Comparison. The Iowa-Netherlands Comparison Orientation Scale (INCOM) by Gibbons and Buunk, (1999) is an 11-item self- report of social comparison. The participants are asked to specify how much they agree with the items pertaining to the way they compare themselves with others on a 5-point Likert scale, with "I disagree strongly" (1) to "I agree strongly" (5). *"I often compare myself with others with respect to what I have accomplished in life"* and *"I always like to know what others in a similar situation would do"* are sample items in the test. Total score is obtained by summing the responses from each item. Internal consistency of the original scale has a Cronbach alpha of 0.83. In the Turkish version of the INCOM scale, it was reported to have test-item correlations between 0.26 to 0.65 (Tekozel, 2000). In the present study, INCOM Scale had a Cronbach's alpha of 0.65.

FoMO. Fear of Missing Out (FoMO) Scale developed by Przybylski, Murayama, DeHann, and Gladwell (2013) is a 10-item scale that measures the individual's FoMO. Responses are scored on a 5-point Likert Scale, from "Not at all true to me" (1) to "Extremely true of me" (5). *"I fear others have more rewarding experiences than me"* and *"I get anxious when I don't know what my friends are up to"* are sample items found in the test. The scale is scored by obtaining the average responses to all ten items. The scale demonstrated good internal consistency with reliable composite measure, α = 0.87 to 0.90 (Przybylski, Murayama, DeHaan & Gladwell, 2013) and a strong internal consistency, α = 0. 93 based on the study by Reyes et al., (2018). In this present study, the scale had a Cronbach's alpha of 0.85.

Neuroticism. The Neuroticism Scale Questionnaire (NSQ), developed by Ivan Scheier and Raymond Cattell (1961), is a 40- item questionnaire that measures degree of neuroticism or "neurotic trend". This questionnaire consists of items pertaining to the attitudes and opinions the participants do and feel about certain situations; they are to indicate whether each item applies to them by putting a cross in one of the three choices- "Yes" "In Between" or "Undecided and "No". Responses are tallied by using a standard key-scoring system and converted to standard normative scores for interpretation. Higher scores indicate more neurotic trend. *"I sometimes get tense and upset as I think back on the day's happenings"* and *"Sometimes I let small things get on my nerves too much"* are sample items found in this test. According to Scheier and Cattell (1961), the Cronbach alpha coefficients of the NSQ are 0.74 for Tender- Mindedness (I), 0.76 for Depression (F), 0.69 for Submissiveness (E) and 0.84 for Anxiety (An). The reliability of Neuroticism Scale Questionnaire (NSQ), ranges from 0.60 and 0.70 (Bhandari & Bhandari, 2011). The whole scale had a Cronbach's alpha of 0.50 in this present study.

Procedures

Before conducting the study, permission from the Ethics Review Committee (ERC) at the University of Santo Tomas Graduate School and from the test developers through electronic mail were sought. Through convenience sampling, 1000 Filipino millennials who met the inclusion criteria were recruited for the study. Informed consent was obtained from all participants prior to administration of tests. The six measures were compiled and administered through a 20-30-minute paper survey in this order: Bergen Facebook Addiction Scale (BFAS), Goldberg Depression Scale, Rosenberg Self-Esteem Scale, Fear of Missing Out Scale, Iowa-Netherlands Comparison Orientation Scale (INCOM), Neuroticism Scale Questionnaire

(NSQ). Data were collected in different universities and companies within Metro Manila, Philippines. The participants received no remuneration.

Data Analysis

To determine if there were any significant differences between male and female participants in terms of Facebook addiction tendencies, Independent samples t-test was utilized. Pearson's Correlation Coefficient was used to measure the relationship of the psychological variables and Facebook addiction tendencies. Lastly, to test if the psychological variables significantly predict Facebook addiction tendencies, Stepwise Multiple Regression Analysis was utilized.

Results

Descriptive statistics revealed that in terms of Facebook Addiction tendencies, females scored higher (M=15.76, SD= 4. 48) than males (M= 16. 11, SD= 4. 22). Independent samples t-test was used to measure if there were any significant differences between our male and female participants. Result showed no evidence to support that Facebook Addiction Tendencies significantly differed across gender, as indicated by the t-test p-value of .28 (>. 05).

Table 2 presents the results of the correlational analysis between Facebook addiction tendencies and psychological variables. Pearson's Correlation Coefficient was utilized to measure the relationship of the psychological variables and Facebook addiction tendencies. With the exception of Neuroticism ($r (998)$ = -. 01, p= .854), the other psychological variables are significantly related with FB addiction tendencies: Depression ($r (998)$ = .20, p= .001) and FoMO $r (998)$ =. 24, p= .001) correlates positively with Facebook Addiction tendencies; Self-esteem ($r (998)$ = -. 08, p= .013) and Social Comparison ($r (998)$ = -. 11, p= .001) correlates positively with Facebook Addiction tendencies.

		Pearson's r	p-value
Facebook	Depression	.20	.001*
Addiction	Self-Esteem	-.08	.013*
Tendencies	Social		
&	Comparison	-.11	.001*
	FoMO	.24	.001*
	Neuroticism	-.01	.854

*$p \leq .01$

Table 2: Correlation between Facebook Addiction Tendencies and Psychological Variables

Table 3 presents the final regression model which shows that only Depression and FoMO could significantly predict Facebook addiction tendencies. The model explained only 7% of the variance and the model was a significant predictor of Facebook addiction tendencies, $F (2, 997)$ =39.49, p<.01 which indicates that although depression and FoMO are contributory factors for Facebook addiction tendencies, the final model can only predict a very small percentage of the population. Both depression and FoMO had a significant positive correlation with Facebook addiction tendencies. The effects size shows that for everyone unit increase in depression there will be a corresponding .04 increase in Facebook addiction tendencies ($ß$ = .04, p<.01). Similarly, for everyone unit increase in FoMO there will be a corresponding .11 increase in Facebook addiction tendencies ($ß$ = .11, p<.01).

Predictors	B	SE B	ß	R^2 (Adjusted R^2)
Depression	.04	.01	.14	.27 (.07)
FoMO	.11	.02	.19	

Table 3: Final Model Stepwise Multiple Regression Analysis of Predictors of Facebook Addiction

Discussion

The present research found that Facebook Addiction tendencies did not significantly differ across gender, thus accepting the null hypothesis. The results of the present study are in contrary to the majority of previous studies which revealed that women are more prone to develop Facebook Addiction (Andreassen, 2015 ; Hofmann & Nadkarni, 2013; Sherman, 2011; Thompson and Lougheed, 2012; Steggink, & Jansma) ,because women are biologically wired for social networking (Vermeren, 2015). Variances in numbers across genders in terms of Facebook use from different studies can be attributed to the millennials' diversification into other social media platforms with similar features such as Instagram and Twitter (Kemp, 2015; Duggan & Smith, 2013). Research suggests that millennials favor newer and more graphic communications platforms based on the study conducted by the research firm eMarketer (Lomas, 2017). Although Facebook remains to be the most widely used social networking site around the world and the most popular among millennials, they are starting to abandon Facebook and migrate to Instagram and Snaphat which are both photo and video-sharing platforms which also allows connecting and communicating with people online (Guynn, 2017).

Results also revealed that depression and FoMO correlates positively with Facebook addiction thus refuting the null hypotheses. This implies that the more depressed an individual is and the more fearful of missing out, the higher the tendency of getting addicted to Facebook. Scherr and Brunet (2017) likewise postulated that people with depression use Facebook to fulfill psychological and social needs such as the need for social contact and to seek relief by gaining social support from others (Ryan, 2015). With the nature of depression which involves social isolation or diminished social activities, and possible lack of energy or drive to participate in direct face to face social interactions (Lin et al., 2016), depressed individuals try to compensate for their unmet needs with online connectedness thru social media use (Przybylski, Weinstein, Ryan, & Rigby, 2009). The lack of real-life social connectedness motivates people with depression to engage more in social networking sites which could contribute to higher Facebook addiction tendencies (Masur, Reinecke, Ziegele & Quiring, 2014). Przybylski et al. (2013) and Steggink and Jansma (2015) strongly emphasized that one's FoMO had a significant role in the increased usage of social networking sites such as Facebook. Because human beings have the inherent need to belong to groups, they also have the need to keep track of what others are doing (Jood, 2017). Millennials engage in social media sites not solely to socialize with others but to also be updated with the latest news and information about their online friends and almost about everything happening in the society (Media Insight Project, 2014). According to Fuster, Chamarro, and Oberst (2017), because of the high accessibility of going online in today's digital age via portable devices and smart phones, Facebook users who experience high FoMO are may have the urge to keep up to date with their online friends' activities.

Self-esteem and social comparison correlate negatively with Facebook addiction tendencies, thus refuting the null hypotheses. This indicates that the lower the self-esteem and social comparison, the higher the tendency of getting addicted to Facebook. Forest and Wood (2012) postulated that those with low self-esteem consider social networking sites as less threatening

as compared to face-to-face interactions when presenting and expressing themselves to others (Scissors, Burke, Wengrovitz, Way, & Park, 2016). Another motivating factor that drives an individual to use Facebook among low self-esteem individuals is the need for self-presentation since Facebook allows its users to control the content of their social media. In a study by Rantasalo (2017), he postulated that Facebook users consciously control the content of their Facebook account such as their profile pictures, the photos and status updates they post in order to project their best possible image to their online friends and cope with their low self-esteem. In relation to social comparison and Facebook addiction tendencies, Vries et al., (2018) postulated that those with high social comparison scores tend to have lower positive affect after seeing positive posts in their newsfeed which could possibly cause them to use Facebook less often, while those people with lower tendencies to compare themselves with others or lower social comparison had higher positive affect after seeing positive posts, which could drive them to engage on Facebook activities

The researchers also found no significant relationship between neuroticism and Facebook addiction, thus accepting the null hypothesis. In a similar study by Scherr and Brunet (2017), findings revealed that neuroticism only influence the motivations behind Facebook usage and not directly affect the time being sent on Facebook. Furthermore, Hughes, Rowe, Batey, and Lee (2012) concluded that although it has been revealed in their study that an individual's personality was related to Facebook usage, the correlations were not direct or significant as other research suggested as other factors such as motivation behind Facebook use, self-efficacy and intelligence could be influential.

Lastly, among all the psychological variables investigated in the present study, only depression and FoMO significantly predict Facebook addiction tendencies, nevertheless rejecting the null hypothesis. Ryan, Chester, Reece, and Xenos (2014), strongly suggested that people with low psychosocial wellbeing such as those with depression are more driven to use Facebook to seek for social support and as an escape from their negative moods. Moreover, individuals who scored higher in FoMO scale who may report negative feelings such as being anxious when there is a lack of constant connection online with what others are doing, are more likely to develop Facebook addiction tendencies.

In conclusion, results from this study implied that Facebook addiction tendencies between men and women did not significantly differ as opposed to other earlier studies. This suggests that Facebook addiction tendencies cannot be generalized into a specific gender group. Moreover, it could be implied that as years go by, millennials also diversify into other social media platforms with similar features with Facebook to fill their needs. Although Facebook has been long hailed as the most popular and most widely used social media site (Statista, 2018), a survey made by the Manifest Consumer Media Survey reported that Facebook's popularity is declining with the younger generation (Cox, 2019). The young generation is more enticed in newer and more visually-driven platforms that are suited for photo and video sharing without the need for words such as Instagram and Snapchat (Koprowski, 2018) mainly because photo sharing has become a prevalent routine communicative action in the young generation's everyday life (Lobinger, 2016).

Furthermore, the results revealed that from the different psychological variables used in the study, only depression and FoMO are possible predictors of Facebook addiction among participating Filipino Millennial but does not imply absolute causation to having Facebook addiction. This implies that although depression and FoMO can be considered as contributory factors in having Facebook addiction, other individual factors which may not be explored in

this study can affect one's tendency to have Facebook addiction. According to Bryant (2018), the use of media among adolescents is centered on staying connected at all times, that is to get to know people, stay in touch with friends, and present themselves to the world. Shapiro and Margolin (2014) also added that adolescence is a developmental phase for self-discovery, exploring new social skills, and creating values and affiliations. Furthermore, these media is a good avenue to facilitate identity exploration or the search for coherent sense of self (Subrahmanyam , Smahel & Greenfield, 2006) as adolescents use these sites for self-presentation by choosing how to represent themselves sonline and sharing aspects of their lives (Subrahmanyam & Smahel, 2011). Many developmental tasks associated with adolescence are extended into emerging adulthood (Arnett, 2007; Koepke & Denissen, 2012; Tanner, 2006). In Erik Erikson's psychosocial developmental the basic crisis during young adulthood is intimacy versus isolation where the individual is concerned with establishing intimate, long –term relationships with other people stages (Erikson, 1993). Forming relationships and being socially connected with others is evident among millennials especially with the aid of technology. At present, the integration of technology into the everyday lives of young adults is not reliant upon the individual's general willingness to experience new things but more likely due to the pervasiveness of technology into the lives of millennials (Gray, 2014). Moreover, because access to the online world is much easier today, individuals who do not have a Facebook account or gadget may have the tendency to feel socially isolated (Auter, 2007). During these phases when peer support and approval is significant, social media platforms support these needs (Hillier & Harrison, 2007).

With the widespread popularity of social media particularly Facebook among millennials, it is essential to understand the psychological factors that influence an individual's Facebook (FB) use, specifically with those using FB at higher levels and to identify those who may be at risk of developing addictive tendencies. An awareness and better understanding about the nature of Facebook Addiction as an arising disorder among Filipino millennials and the psychological predictors that predispose an individual to have this condition can help mental health practitioners to educate the public on prevention and management of Facebook Addiction among millennials and emphasize appropriate, disciplined and self-regulated use of social networking sites, particularly Facebook.

Future Directions

The present study leaves open the question of cause and effect whether psychological variables-depression, low self-esteem, FoMO, neuroticism and social comparison cause Facebook addiction tendencies or if having Facebook addiction tendencies causes an individual to have the abovementioned psychological effects. Thus, for future studies, possibly a longitudinal study that would explore more on the causal relationship of the variables, can help in unraveling this question. Moreover, an exploration on the possible relationships among the predictor variables and the possibility of mediating or moderating roles in predicting FB addiction tendencies is recommended since the present study's objective is only to measure the relationship of the psychological variables to the tendencies of having Facebook addiction,

Furthermore, an investigation on how the Filipino culture and values influence Facebook use and Facebook Addiction tendencies among Filipinos may also be pursued to explain how such factors contribute to the development and occurrence of Facebook Addiction tendencies in the Philippines. Also, since this study only involved millennial participants within Metro Manila, the use of samples in other geographic regions in the Philippines to represent the population may be carried out in future similar studies.

Lastly, our study gathered 1000 Filipino millennials with ages ranging from 18-34 who are monthly active Facebook users. The present study did not specifically determine the number of times spent on Facebook usage among the participants; thus, an exploration on the relationship of time spent on Facebook on FB addiction tendencies is encouraged for future similar studies. Additionally, to consider on the possible role of age differences in the Millennial generation and an investigation on whether gender acts as a potential covariate in predicting Facebook Addiction tendencies is highly recommended.

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Corresponding Author: Debbie Marie Bais
Email: dbbiemarie@gmail.com

Human Rights and Bioethics within Psychiatric Hospitals in Japan

Sugai Maree
Tohoku University of Community Service and Science, Japan

Abstract

Looking inside the walls of private psychiatric institutions in Japan, this paper explores bioethical concerns for autonomy in a high context culture, amongst people diagnosed with severe mental illness. The objective is to identify contextual components of control in Japanese clinical ethics that affect well-being, including the controversial extended use of bed restraints, and to recommend the need for future research and discussion of culture-specific values in accommodating respect for autonomy. This paper explores how and why these controlling factors need to be exposed, and considered, in any agenda focused on re-conceptualizing autonomy as a human right for people in psychiatric care. The paper sets out why these issues are issues of international human rights and seeks to open the dialogue through exploration of cultural, normative ethics of hospital conduct and psychiatric health care in situational context within Japan. Central to the paper is exploration of respect for autonomy and what this means for a population of people whose voice is seldom heard, always questioned, and who are vulnerable to being second-guessed and abused. This paper calls into focus the roles that sociocultural constructs, history, politics, and cultural values play in a health care system for people with psychosis and aims to contribute inquiry into a global social justice within a culture-bound domain of morals and ethics. In the conclusion and throughout this paper suggestions of careful and culturally sensitive international intervention are put forward as key strategies toward a humane solution for the serious human rights issue of respect for autonomy and agency on behalf of psychiatric patients in Japan.

Keywords: bioethics, culture-bound, human rights, psychiatric, medical anthropology

Introduction

On April 30th, 2017 a young man named Kelly from New Zealand was admitted to Yamato psychiatric hospital in Kanagawa prefecture, Japan. Following a manic outburst, he was restrained to a bed at the wrists, ankles and waist with large and heavy clamp machines for a period of ten days. On the tenth consecutive day of full body restraints, the man in his twenties passed away with an autopsy revealing he had almost certainly died of massive heart failure following deep vein thrombosis of his immobile legs (Takanaka, 2017). The practice of bed restraint in a small padded wall room (*zashiki-rou*) is common practice in Japan, and 30 days of restraint is not uncommon (Brown, 2017). Kelly's case brought to global attention the practice of full body restraint of the mentally ill in Japan and the glaringly absent reforms in favor of psychiatric patient's human rights. The United Nations Committee against Torture, reported in 2013 that solitary confinement, forced medication and use of bed restraints constitutes inhumane and degrading treatment, (United Nations, 2013) but these treatments still routinely and prolifically exist.

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The practice of bed restraints for patients considered dangerous either to themselves or others including hospital staff, has been in practice since the 17th century in Japan when the government ordained the mentally ill to be out of sight and restrained in private domestic cells of a relative's homes up until 1944 (Totsuka, 1990, Kanata, 2016, Ishikawa, 1990). Legend and folk traditions describe how older mentally ill people were abandoned in the mountains and left to die perpetuating the idea that mentally ill persons are shameful and a disgrace to their relatives and society (Totsuka, 1990, Kanata, 2016). The principle of social defense situates ethics with a priority on society as a large social unit (Matsumoto, 2003), even if this security comes at the cost of autonomy and unmitigated role loss for a disadvantaged minority. Kleinman discusses "social contributions to mental illness" (1988, p.56) and the influence social structure has on well-being. Autonomy, in its already diminished state for severely disabled persons may mean contextual interventions that promote better feelings of well-being and respect for personhood. Excessive control and extended use of bed restraints constitutes a disrespect for autonomy and is inhumane. Forced restraint is particularly concerning in mental illness because attributions of blame and punishment fall on an already damaged sense of self. For people with psychosis and severe mental disorders, positive images of self and identity may well be intrinsic to protection from severity and duration of disease remission. Psychosis features eddying disturbance of self, and people with psychosis are extra vulnerable to control abuse that might take away the small amount of agency they are able at any given time to retain. Sue Estroff in discussing chronicity in schizophrenia points out that people with psychosis and severe mental illness are judged "more offensive to moral convention regarding individual restraint and responsibility" (Lindenbaum & Lock, 1993, p.257). This moral convention is based on purity and contamination theory in eugenics (Ruger, 2006). "The Eugenics Protection Law was in operation in Japan between 1948 and up till as late as 1996" (Kanata, 2106, p.482). It still operates indiscriminately throughout psychiatric care in Japan as a silent principle undiscussed but culturally assumed. This assumption is perpetuated within the social construct of psychiatric care which the government selected for exclusive privatization in Japan in the 1960's and is accordingly run by business owners as a profit driven industry with limited supervision by the Ministry of Health (1966). As an age-hierarchy socially structured country Japan's institutions are managed exclusively by older men (and a few women) who grew up with the Eugenics Protection Law taught to them in school and pervasive through communal upbringing.

In the 1960's, the government encouraged use of de-populated land offering construction loans at very low interest for private ownership of mental health facilities out of town (Kanata, 2016). Today most private psychiatric institutions (80% of the total number of institutions) are located in the middle of the countryside with limited access via road and none via train. Typically, visitors can expect a bus to take one-and-a-half hours to arrive and will need to wait for a return bus to the nearest city, possibly with as few as one to three buses traveling to and from institutions daily. This is a concern because distance and inconvenience serve as considerable utilitarian barriers for loved ones wishing to visit, further isolating patients. Wards are locked 24 hours a day and patients cannot go outside in the fresh air. Wards typically have a bad smell, small barred windows, and old, tattered and uncomfortable wooden furniture with narrow iron beds. Access to telephones and other means of communicating with the outside world are severely restricted. Patients must hand in their phones to nurses on admittance and do not have them returned until they are discharged. "Day to day, says Dr Fujisawa, patients are totally controlled" (In the dark ages, 2001). Patients are not allowed personal belongings except one box of clothes. Every visitor entering a facility must have their bags and pockets checked much like a TSA check and without informed consent. There is no Wi-Fi or access to computers. A television stays on from 6am to 8pm in the living area and this is the only sound apart from the patient's voices and comings and goings of staff.

People who suffer from severe psychosis, are hospitalized via administrative proxy consent and routinely confined to their bed with restraints for observation for the first week. There is a process of levels to rehabilitation that are non-negotiable and apply to a wide variety of psychiatric disorders. Recently there has been a shift in some regions toward a more community style layered system of integration back to society on discharge, however, stigma of patients is so strong that patients will not be able to work again except with the handicapped status that permits lower wage pay than the legal minimum. This social infrastructure negates the third condition principle of non-control in Beauchamp and Childress' theory of autonomy (2013). It is a violation of human rights and an example of how structural violence manipulates the lives of marginalized people to keep them isolated and excluded.

The pattern of admission in private, rural, psychiatric hospitals in Japan occurs as follows: patients who have experienced level 3 relapse (or first episode psychosis) are taken to a psychiatric care unit where there are many procedures carried out, including electric shock treatment, full body restraint and 24-hour monitoring is in place. After a long period of evaluation and medication with the average length of stay of 300 days in a psychiatric institution (Kanata, 2016), and if the patient shows signs of improvement or remission, they are taken to unit 2 which is a slightly less restricted unit and patients can have visitors, immediate family members only. Following a period of time depending on improvement patients are then admitted to a much freer come and go "stress care unit" level where phones are allowed to be used between 9am and 5pm and next of kin can visit between these hours too. During this observation period of 3 regulated levels patients are continually being monitored and may return to level 3. At level 1 (stress care) patients gain back some autonomy and are introduced to a social worker who takes their case on and arranges for hospital release. Release however is no promise of return to self-governance with strict rules in place for a lifetime for any person socially tainted with a history of psychiatric institutionalization.

This institutionalization of psychiatric care is embedded in both cultural values and socio-economic norms. Empty beds (early discharge) means less economic revenue. De-institutionalization or reform toward a less hospitalized structure and earlier discharge for patients is complicated because more than 80% of Japan's psychiatric hospitals are privately

owned and run, rendering government interventions ineffective. Priority of economic growth over respect for self-governance and personhood takes precedence. This dynamic goes largely unquestioned because autonomy is constructed in a cultural setting prioritizing group consensus that duly gives respect and power to authority in dictating degrees of independence. Kleinman calls this social suffering of people with psychosis "moral death" and "social exclusion" begging for inquiry into what ground zero for mental health means and the "appalling ways in which people with psychosis are treated almost all over the world" (Kleinman, 2012, p.120).

In 1958 (Kanata, 2016) the Japanese government introduced *seishinka-tokurei* a law allowing psychiatric hospitals to operate legally with a much lower ratio of trained medical care workers than general hospitals. This created potential for employment of staff with little experience of working with patients suffering from psychosis and severe mental illness. There have been many cases of severe abuse including fatalities, and over 20,000 patients in private psychiatric hospitals a year die in care (Kanata, 2016). In 1984 an incident occurred in a psychiatric unit in Utsunomiya where two patients were beaten to death by hospital workers (Koboyashi, 1993). Investigation by the Asahi Shinbun newspaper further uncovered 222 suspicious fatalities at the same hospital.

In a high context country, a blink of an eye, a slight graze of touch in passing, or getting up and leaving the room can be powerful signals expressing disagreement or approval. This nuanced cultural norm is pertinent to care of people with psychosis because through illness of the mind, the ability is lost to decipher boundaries or to tread extra gently, to express subtly and to be understood with indirect communication. In severe mental illness linguistic cues within Japanese culture that foster social acceptance and inclusion are deactivated, eroding feelings of belonging. Communication is severely disturbed. This linguistic context is another feature of psychosis that determines isolation culturally and embeds marginalization as culture bound. A person who cannot read, perform and master the non-confrontational and confusionist traits of nonverbal linguistic cues is a person who does not fit well into social contexts in Japan. While emphasis is on harmony and subtlety in communication norms, peace, harmony and social order are paramount in society at large. Private psychiatric units have direct connections with the Japanese police, allowing private information to be released in cases where a patient may be implicated. Cases of forced confession in Japan have posed serious ethical concern (Onishi, 2007) and this is especially worrisome among vulnerable mind-disordered populations. Totsuka (1990) in his summary of mental health law in Japan, writes that Japan has no concept of voluntary hospitalization or rights with respect for autonomy for mentally ill patients and that Japan "has always considered that all mentally ill people are incompetent" (p.199) relegating decision making in entirety to authority. Many laws of informed consent are overridden in psychiatric care. Not only does the complete abdication of self-governance occur as soon as a patient enters the hospital but also the stamp of irrevocable loss of rights on a broad social scale as admission to a psychiatric unit negates the possibility of ever working a normal wage hour again. Patients with a psychiatric history are issued with a mental disability certificate and are thereafter ineligible to be paid minimum working wage per hour and instead must be paid the much lower "disabled" rate of around $2-$3. These are social issues of structural violence that the government needs to address to enable dignity and respect for autonomy and role in society. A "culturally informed bioethics examines the field itself, questioning bioethics' actions in relation to broad social institutions" (Marshall & Koenig, 2004, p. 254). It is here we must begin.

Conclusion

The Japanese government has a responsibility to protect the vulnerable and reduce social suffering amongst people with mental illnesses. The international community has a responsibility to examine human rights within fragile and marginalized groups around the world. Protection begins by unpacking and defining the contributors that go towards oppression and excessive control of individual agency and autonomy. The world must see what is hidden in the countryside of rural Japan. Change begins with dismantling smaller and larger components of life for patients in psychiatric hospitals that impede well-being; the ubiquitous use of bed restraints, the appalling wages for any person holding an 'impaired mental health' card, the denial of personal telephone usage in psychiatric wards, and the denial of personal belongings that dehumanizes a bed area that may be a long term home for the patient, are to mention a basic few. Global social justice demands the system of privatization of psychiatric hospitals in Japan to be opened internationally for scrutiny. I believe that only with intervention from outside of the country, free from the binds of Japanese tight cultural contexts and rigid culturally fixed ethical codes, will change be successfully ordained for people with psychosis and severe mental illness here in Japan. Further research and an updated discussion of ethics with implementation of revised ethical laws is imperative for a group of people whose voices and lives are seldom seen or heard.

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Corresponding Author: Maree Sugai
Email: mareesugai@yahoo.com

Efficacy of Acceptance and Cognitive Restructuring Intervention Program (ACRIP) on the Symptoms of Internet Gaming Disorder and Psychological Well-Being of Adolescents

Georgekutty Kuriala Kochuchakkalackal
The Graduate School, University of Santo Tomas
& College of Medicine, Emilio Aguinaldo College, Philippines

Marc Eric S. Reyes
College of Sciences, and the Graduate School
University of Santo Tomas, Philippines

Abstract

This study examined the efficacy of the Acceptance and Cognitive Restructuring Intervention Program (ACRIP) in reducing the symptoms of Internet Gaming Disorder (IGD) and improving the psychological well-being of adolescents. The ACRIP is an eight-module intervention program carried out over a four-week period. Its efficacy was tested using "randomized controlled trial" of two groups consisting of 40 adolescents. Twenty adolescents were each assigned for experimental study and under a controlled environment. Internet Gaming Disorder and Ryff's Psychological well-being scales were used to measure the severity of the gaming disorder and the present state of one's psychological health respectively. Paired t-test and MANOVA were used for data analyses and Cohen's d test measured the extent of the effect of the program. Results of paired t-test and MANOVA showed statistically significant effects and thus suggest that ACRIP is an efficacious remedy in reducing and relieving the symptoms of IGD and enhancing the psychological well-being of adolescents.

Keywords: internet gaming disorder, compulsive internet gaming, psychological well-being, mental health, cognitive restructuring

Introduction

The emergence of Internet Gaming Disorder (IGD) or gaming disorder as a growing social issue and a significant health concern-affecting adolescent in increasing number of countries (World Health Organization, 2015) needs the development of an effective intervention program. The reduction in the dysfunction brought about by IGD, the need to uplift the poor psychological well-being of adolescents and its effective treatment are at a high priority when such a disorder becomes a public health concern and an effective treatment program has yet to be established.

"Gaming disorder", the official nomenclature given by the World Health Organization (WHO) to compulsive online or offline gaming, was recently recognized as a mental health condition. It is included in the WHO's 11th International Classification of Diseases (ICD-11) released mid-2018 and characterized as "a pattern of persistent or recurrent gaming behavior ("digital-gaming" or "video-gaming"), which maybe online (i.e., over the internet) or offline, manifested by: (a) impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); (b) increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities; and (c) continuation or escalation of gaming despite the occurrence of negative consequences. These manifestations whether continuous, episodic or recurrent, must be present at least in the last 12 months to be significant for diagnosis. If severe symptoms and all diagnostic criteria are present, the length of time may be shorter. The ICD is used by medical practitioners around the world to diagnose conditions and by researchers to categorize conditions (World Health Organization, 2018a).

Since the proliferation of internet in 2000s and the prevalence in internet gaming among the adolescents, empirical evidences began to surface associating compulsive internet gaming with poor psychological well-being (Gentile et al., 2010; Kuss & Griffiths, 2012). In 2013, the American Psychiatric Association (APA) recognized excessive online gaming due to its potential to becoming a public health threat and referred to it as Internet Gaming Disorder (IGD). To aid clinicians, it defined the nine preliminary diagnostic criteria in the Diagnostic and Statistical Manual 5th edition (DSM-5), last updated in 2013, as: (a) pre-occupation with internet games, (b) withdrawal symptoms, (c) tolerance or the need to spend increasing amounts of gaming time, (d) unsuccessful attempts to control participation in internet games, (e) loss of interest in previous hobbies and entertainment, (f) continued excessive use of internet games despite knowledge of psychosocial problems, (g) deceived family members, therapists or others on the amount of time spent gaming (h) used internet games to escape, and (i) harmed or lost a significant relationship, job, or educational or career opportunity. Five of these nine criteria must be present over a 12-month period for diagnosis and should lead to a significant impairment and clinical distress (APA, 2013). IGD is, however, included in the research appendix (section III) of DSM-5 as a condition requiring further study to be considered a clinical disorder in the *Diagnostic Criteria and Codes* section (APA, 2013). As this study pertains to compulsive or excessive and uncontrollable internet or online gaming, we adopted the term IGD as used by APA and widely used in the existing literature.

Over the years, empirical studies on IGD were consistent in showing the serious implication of the disorder to psychological well-being (Gonzales-Bueso et al., 2018; Kuss & Griffiths, 2012; Stavropoulos, Kuss, Griffiths, Wilson, & Motti-Stefanidi, 2017; Subramaniam et al., 2016). Similar to substance use disorder and general problematic internet use (PIU), IGD is significantly associated with self-harming behaviors and other negative consequences as adolescents become uncontrollably pre-occupied with gaming (Kuss & Griffiths, 2012).

Psychological consequences include sacrificing sleep, other pastime activities, socializing and relationships (Stavropoulos et al., 2017); jeopardizing academic work and employment; and enduring related health problems like eyestrain, carpel tunnel syndrome, back strain and repetitive stress injury in some cases. For instance, in India, online gaming is taking a toll among its gamers as they commit suicide in various ways such as jumping off a building or harming oneself to death. In response, the Indian government took action on the deadly game, Blue Whale Challenge, and recently directed internet majors – Google, Facebook, WhatsApp, Instagram, Microsoft and Yahoo – to erase its links (Blue Whale Challenge, 2017). The impairment experienced by adolescents with IGD extends to all aspects of life as it results in failed or poor academic performance, functional impairment, health issues, emotional imbalance, and mental problems. The impact of IGD to psychological well-being is seriously destructive as it may cause deep depression and resort an individual to threaten his own life. With the many and possible negative consequences of IGD which allow its behavior to be classified as pathological based on established clinical standard as per APA (2000), IGD may require professional treatment (Kuss & Griffiths, 2012; Kuss, Griffiths, & Pontes, 2017).

Based on several studies, adolescents have the greater chance of developing internet addiction (APA, 2013; Tsitsika et al, 2011) and are more vulnerable to addiction although internet addiction can occur at any age and in any social condition (Pallanti, Bernardi & Quercioli, 2006). Cognitive and psychological developments happen during adolescence. At this stage, the adolescents' reasoning skills, logical including abstract thinking, ability to make rational judgments and moral thinking significantly develops. However, these developments can be affected by the internal changes within the adolescent and his environment (WHO, 2018b). Rehbein and Baier (2013) found that the risk factors of IGD in 15-year old adolescents would have started coming out at age 10. At the stage where well-being is significantly formed are neuronal developments in the regions of one's brains such as the limbic system that are responsible for pleasure seeking and reward processing, sleep regulation and emotional responses. Changes in organization, decision-making, impulse control and planning occur in the pre-frontal cortex, which is responsible for executive functions. All these changes at the developmental stage are influenced by one's self and environment (WHO, 2018b). Adolescence is regarded as the stage where young people seek purpose and meaning in their life. Low psychological well-being at this time may lead to dissatisfaction, difficulties and poor functioning in life areas such as career, interpersonal relationships, social life and increased risk of suicide (Lemmens, Valkenburg & Peter, 2011).

There has yet to be an established efficacious intervention program that will prevent and treat IGD (WHO, 2015). Per existing literature, there also is the need for systematic reviews on interventions and/or treatments for IGD. There was little evaluation about the efficacy of various psychological interventions applied on adolescents (King, Haagsma, Delfabbro, Gradisar, & Griffiths, 2013; King & Delfabbro, 2014). According to King and Delfabbro (2014), the application of Cognitive therapy as treatment for IGD in 36 studies seemed to lack cognition-based measures. Further, existing literature suggested examining the efficacy of Cognitive Behavioral Therapy (CBT) for randomized-controlled studies (Hofmann et al., 2012).

The serious and alarming impact of IGD on the psychological well-being of adolescents heightens the need and proposes to develop an efficacious intervention program for this current and emerging disorder. On this premise, the intervention program Acceptance and Cognitive Restructuring Intervention Program (ACRIP) was developed with the purpose of reducing the

adolescent's risk level of IGD and improving one's psychological well-being. Hence, specifically, the hypotheses examined in this study were:

H.1. Negative cognition influences psychological well-being,
H.2. IGD predicts poor psychological well-being, and
H.3. ACRIP as an intervention program is efficacious in reducing the IGD risk level and improving the psychological well-being of adolescents, and has a lasting benefit.

The ACRIP, an eight-module intervention program that was organized for completion within four weeks (three hours per module, twice a week) was then subjected to an experimental study to test the modules' efficacy.

Process of Program Development

A study of existing related literature and current scenario were performed to assess the relevance, impact and potential of the issue at hand. After a correlation was established between IGD and psychological well-being and careful examination of its constructs, the intervention program ACRIP was developed by integrating the concepts of two cognitive theoretical models: Cognitive Behavioral model of Problematic Internet Use (PIU) and Mindfulness. The intervention aimed at reducing the symptoms of IGD experienced by the adolescents and improving their psychological well-being in order that they will function productively at home, in school and other areas of their life so as not to become a burden to society.

The Cognitive Behavioral model of PIU suggests that pathologic internet use results from "problematic cognitions coupled with behaviors that either intensify or maintain the maladaptive response" (Davis, 2001 p.191). It proposes that maladaptive cognitions about the self and world are proximal sufficient causes of symptoms of IGD. Cognitive distortion intensifies an individual's dependence to internet gaming (Davis, 2001). Experts to guide an individual to self-question, self-talk and to instill positivity in them then apply cognitive Behavioral Therapy (CBT). The ACRIP program focused on self-awareness, self-acceptance, identifying cognitive distortions and its root cause, and determining the CBT technique most suitable to counter the effect of and modify these unhealthy thinking patterns leading to cognitive restructuring.

The cognitive theory of Mindfulness by Ellen Langer states that mindfulness is "a flexible state of mind in which we are actively engaged in the present, noticing new things and sensitive to context" (Langer, 2000 p.220). Moreso, mindfulness is both a state and a trait wherein the state is the behavior in a particular situation while the trait can incline a person to think and behave mindfully (Langer, 2000). It promotes sensitivity to the environment and supports clearer thoughts and behaviors as it teaches individuals to become observant of and experience their thoughts and feelings. Having the trait to be mindful can spawn new outlook and encourage making upright decisions. The basic framework of the theory is that with appropriate interventions, mindlessness can be overcome (Langer, 2000). A person can then change behavior aligned to ones' thinking. In this way, it can be said that negative cognitions can be overcome through cognitive restructuring.

A pilot study was undertaken, and the results were good indicators to conduct an experimental study. The mean scores and standard deviation values using the IGD and PWB scales, pre-test vs. post-test, showed decrease in the adolescents' IGD level (from $M = 41.50$, $SD = 2.17$ to $M = 20.80$, $SD = 2.15$) and increase in PWB level (from $M = 125.90$, $SD = 11.60$ to $M = 420.30$, SD

=22.48) implying a reduction in IGD symptoms and improved psychological well-being after the feasibility study. For statistical analysis, the "Wilcoxon signed rank test" was used to assess the pre and posttest scores of the adolescents. The result showed that there is a significant difference in the pre-test and post-test scores of both IGD (Z= -2.809, p =.005) and PWB (Z= -2.803, p = .005).

Further, the participants' feedback during the pilot test period were obtained to improve ACRIP prior this experimental study was performed. The participants positively acknowledged, expressed fulfillment and appreciated the program. Generally, they reported having less withdrawal symptoms on internet gaming, improved level of concentration, interacted with others more, felt contented and were excited for future life plans. The ACRIP was subjected to content validation by 11 mental health experts other than those involved in the focus group discussions and was tested for inter-rater reliability. The experts used the standard evaluation guidelines, which was an adapted form of the tool, developed and used by United States Agency for International Development (USAID). After thorough evaluation, the experts graded the program with an overall score of "A" unanimously affirming the soundness, relevance and feasibility of the ACRIP. On the inter-rater reliability test of ratings given by the experts, the ACRIP was found be consistent and reliable. The inter-rater reliability resulted to co-efficient of .78. The result of the experts' validation gave the assurance that the program is reliable and predicts high chances of being efficacious in bringing about affirmative changes. Expert comments and recommendations on technical and conceptual aspects were considered in building the program structure prior to start of the experimental validation. The experts suggested reducing the time spent per module from three and a half hours to three hours to hold the attention of the participants enough to keep the momentum and for them not to become weary due to over activity. The result of the study confirmed that the modules developed for the intervention program are reliable, feasible, and efficacious for testing on a larger base of adolescents who are at risk of IGD. The eight modules developed for the ACRIP, summarized as AFFIRMED, and the objective of each module are briefly described in Table 1.

MODULE	OBJECTIVES
Module 1 Introductory session: **A**ccustomizing with Each Other	Present ACRIP and Ignite Rapport (PAIR) Introduce ACRIP to participants; build rapport among and with participants; explore expectations; set ground rules; promote vigor, knowledge, enthusiasm and among participants so they can fully participate in the therapeutic process; educate participants about IGD and their potential to live a quality life; and teach them the benefits of practicing mindfulness regularly to improve their psychological well-being.
Module 2 **F**reeing oneself from dysfunctional	Drop Resentments, Anger, Ill-Feeling Thoughts and Negativity (DRAIN) Starting with oneself, identify the dysfunctional thought patterns; educate participants about how thought affects mood, negative automatic thoughts, thought distortions and cognitive restructuring; how to challenge is automatic

MODULE	OBJECTIVES
	negative thoughts; to enable participants to re-animate their harmful negative thoughts into positive conservative thoughts; to help them reduce self-distorted thinking, loneliness, sadness, anxiety and hopelessness; how to boost self-confidence, positive self-concept, self-acceptance and self-esteem; and to adhere consistently to a set plan of action.
Module 3
Forging Oneself to Divert into Realistic and Optimistic Patterns to Create Positive Vibes (DROP)	To help participants recognize their negative thoughts and emotions and ventilate these from their consciousness; accept their distorted thinking with realistic reconstructive activities; enhance their motivation to be more active and dynamic in day-to-day life; teach them to distract the dysfunctional thoughts; encourage them to become more involved various activities; improve their self-esteem and self-efficacy; and instruct them on various strategies to create positive vibes.
Module 4
Igniting and Re-Building	Communicate, Reconnect, Encourage, Animate, Friendships and Relationships Talk and Engage (CREATE)
To orient and make the participants understand the different factors of good communication; identify positive mutual feelings between self and others; to comprehend different problem-solving techniques; to reconnect with lost relationships; to encourage their family and friends to provide more support to the participants; and re-animate the self- talk.
Module 5
Re-kindling Self-Love	Approval, Care and Concern to Enhance and approval Positive Thinking (ACCEPT)
To encourage self-love, self-respect and self-acceptance among the participants and for them to have a better mental picture of themselves; to accept their good and bad qualities; to notice and acknowledge their positive aspects; to understand that well-being is determined by a person's level of self-acceptance and that it affects all aspects of their life.

MODULE	OBJECTIVES
Module 6 **M**agnifying Self-Worth	Show Toughness, Autonomy and Nobility in Independence Decision Making (STAND) To improve a consistent and positive self-image among participants; to elevate their self-worth and image; to instruct them on how to make decisions without relying on others; and to evaluate their personal standards.
Module 7 **E**nabling Control of Oneself Over the External World	Control over Personality and the Environment (COPE) To process participants' thoughts, feelings and body sensations; to manage every day affairs and improve surrounding context; to be aware of surrounding opportunities and develop a sense of control over the external world; to enable the participants to identify positive coping skills and find specific activities that improve environmental mastery.
Module 8 **D**eveloping a Friendly Atmosphere Where Creativity is Enhanced	CHANGE (Cloistered in Hope and Acceptance, Nurtured and Goal- Enriched) To help the participants to feel better about themselves; to make the participants feel that they are accepted and loved by their family and friends; to improve their creativity as a groundwork for their future living; to help them take the initiative to work and accept future responsibilities; and prepare the participants for termination.

Table 1. ACRIP Modules and Objectives

Methods

Design and Participants

A true experimental research method between two independent groups as subjects was adapted to determine the efficacy of the intervention program developed by the researcher. A prior approval was obtained from the Manila Med Ethics Review Committee to support observance of ethical standards during the conduct of this study.

Forty adolescents ($N = 40$, $M = 14.00$, $SD = 1.34$) were chosen from those who met the inclusion criteria. Twenty adolescents were randomly assigned to each of the experimental and control groups. The participants were selected on the basis of the following inclusion criteria: (1) adolescent boys and girls, (2) 12 to 18 years old, (3) currently enrolled in schools (4) staying/living with biological parents/guardians and (5) engages actively in playing any of the available internet games.

Of the 40 participants, there were more males than females; males comprise 70% ($N = 28$) while females were 30% ($N = 12$). There were also more adolescents captured in the 16-18 age range ($N = 24$) than in the 12-15 age bracket ($N = 16$). Participants' gaming profile showed 80% were

playing more than 30 hours per week. Broken down: 40 hours and up ($N =24$, 60%), 30-39 hours ($N =8$, 20%), and below 30 hours ($N =8$, 20%).

Informed consent was obtained from the participants and their parents and guardians. The study was carried out in consideration of confidentiality and ethical issues.

Measures

Personal Data Sheet/Demographic Information Form (DIF). The study perused a researcher-made personal data sheet/DIF to obtain the following socio-demographic and gaming profile of the respondents: age, gender, number of hours of internet gaming per week, length of gaming per session, frequently played game title and genre, years of experience internet gaming and family relations. The informed consent also forms part of the personal data sheet/demographic questionnaire.

Internet Gaming Disorder (IGD) Scale. The IGDS9-SF (Pontes & Griffiths, 2015) assesses IGD's severity and its detrimental effects by examining both online and/or offline gaming activities occurring over a 12-month period. The IGD questionnaire consisting of nine questions represents the nine criteria of IGD as defined by DSM-5, that is, *Do you feel preoccupied with your gaming behavior?, Do you feel more irritability, anxiety or even sadness when you try to either reduce or stop your gaming activity?, Do you feel the need to spend increasing amount of time engaged in gaming?, Have you lost interests in previous hobbies and other entertainment activities as a result of engagement with the game?* They are answered on a 5-point Likert scale ranging from 1 (never) to 5 (very often). The IGDS9-SF had excellent reliability with an internal consistency coefficient (Cronbach's α) of .96 and is comparable with the coefficients reported in studies (Fuster, Carbonell, Pontes, & Griffiths 2016; Pontes & Griffiths, 2016; Pontes & Griffiths, 2015). Total scores are obtained by adding up all responses given to all nine items of the IGDS9-SF and can range from a minimum of 9 to a maximum of 45 points, with higher scores indicating higher degree of IGD. Gamers are distinguished from non-gamers as having satisfied at least five of the nine criteria where each is answered as "5: Very Often", which translates as endorsement of the criterion.

Ryff's Psychological Well-being (PWB) Scale. Ryff's Psychological well-being scale consists of 84 items dealing with how an individual feels about himself and his life. This self-report scale was designed to assess an individual's well-being at a particular moment in time within each of these six dimensions: (a) autonomy (e.g. "Sometimes I change the way I act or think to be more like those around me"), (b) environmental mastery (e.g. "Most people see me as loving and affectionate"), (c) personal growth (e.g. "I am not interested in activities that will expand my horizon"), (d) positive relations with others (e.g. "When I look at the story of my life, I am pleased with how things have turned out"), (e) purpose in life (e.g. "Maintaining close relationships has been difficult and frustrating for me") and (f) self-acceptance (e.g. "In general, I feel that I continue to learn more about myself as time goes by") . Three-to-12- items per dimension-validated versions exist of the measure for use in survey research or other data collection. Individuals respond to various statements by indicating on a 6-point Likert scale (1-strongly disagree, 2-moderately disagree, 3-slightly disagree, 4-slightly agree, 5-moderately agree, 6-strongly agree) how true each statement is for them. A participant's reply to negatively scored items (-) are reversed in the final scoring procedures so that high scores indicate high self-ratings on the dimension measured. Higher scores on each of the dimension indicate greater well-being on that dimension. Each of the dimensions have the following reliability coefficient according to Ryff & Keyes (1995): autonomy (α = .83), environmental mastery (α

= .86), personal growth (α = .85), positive relations with others (α = .88), purpose in life (α = .88), and self-acceptance (α = .91).

Procedures

The data for this study were gathered from pre-experimental, experimental and post-experimental phase. During the pre-experimental phase, the researcher conducted an information drive about internet gaming disorder and the importance of an intervention program in different secondary schools in India. Using the purposive sampling technique, adolescents were selected from among the students who satisfied the set inclusion criteria. Thereafter, they were informed and assured of the confidentiality of information involved in this study, asked to sign an informed consent including their parents/legal guardians and fill-out the IGD and PWB scales. Interviews and focus group discussions were conducted to obtain valuable information for this research and a pilot study was carried out prior the experimental phase. The participants selected for the experimental phase were designated into experimental and control groups and were introduced to the proceedings of the intervention program ACRIP prior to its execution. The control group did not receive the intervention program ACRIP. The program was completed in four weeks and the program was similarly administered to the control group after the post-test for ethical considerations. In the post-experimental phase, the scores before and after the intervention were subjected to statistical analyses for evaluation. The participants in experimental group completed the post-test two days after the completion of the intervention program.

Results

The study resulted in a remarkable change in the participants' behavior as indicated by the post-test scores during statistical analyses. The low score in IGD and high score in PWB measures among the adolescents in the experimental group only shows that some symptoms of the disorder have been eradicated or reduced which validates that the level of IGD has been reduced and their psychological wellbeing has improved. During pre-test, it was noted that, on IGD measure, mean scores of both the experimental and control groups are high and almost similar (Exp: *M* = 38.50, *SD* = 1.40 and Ctrl: *M* = 38.45, *SD* = 5.02). Pre-test mean scores of both groups on PWB measure also reflected to be at almost the same low level (Exp: *M* = 126.10, *SD* = 18.96 and Ctrl: *M* = 124.60, *SD* = 51.68). Remarkably, for the experimental group, outcome of the post-test on mean scores and standard deviation values showed relevant decrease in IGD (Exp: *M* = 17.25, *SD* = .79) and increase in PWB (Exp: *M* = 406.50, *SD* = 19.22) levels. Post-test mean scores and standard deviation values for the control group during post-test, for both IGD and PWB measures remained more or less on the same level (IGD- Ctrl: *M* = 38.05, *SD* = 3.97) and PWB-Ctrl: *M* = 122.90, *SD* = 48.42) as it is during pre-test.

Overall result of MANOVA test on the difference in the mean scores and standard deviation values of the experimental and control groups during post-test shows significant differences (F (7, 32) =3626.206, p = .001). It clearly connotes that the researcher-developed intervention program, ACRIP, which aims to alleviate the symptoms of IGD and to enhance the psychological well-being of the adolescents is statistically significant at p -value .001.

Table 2 presents the effect of ACRIP using variance analyses in MANOVA between subjects. Results point out that the significant difference on post-test scores of the experimental and control groups is the effect of the intervention program connoting that the ACRIP is

efficacious in reducing the symptoms of IGD (p =.001; F =529.14) and improving the psychological well-being (p =.001; F =592.69) of adolescents.

Variables	Experimental		Control			
	Mean	SD	Mean	SD	F-value	p-value
IGD	17.25	.79	38.05	3.97	529.14	.001
PWB	406.50	19.22	122. 90	48.42	592.69	.001
PR	69.85	3.90	20.85	8.46	553.26	.001
AU	67.35	3.07	20.00	8.50	549.46	.001
EM	66.90	3.08	20.20	8.43	541.31	.001
PG	62.70	3.88	19.95	7.24	542.07	.001
PL	69.95	4.71	21.15	8.13	539.46	.001
SA	69.75	4.10	20.75	8.24	566.87	.001

Legend: SD- standard deviation, IGD- Internet Gaming Disorder; PWB- Psychological wellbeing;
PR - Positive Relations; AU - Autonomy; EM - Environmental Mastery; PG - Personal Growth;
PL - Purpose in Life; SA - Self-Acceptance

Table 2. MANOVA results from the Post-test scores of the Experimental and Control Groups in terms of IGD and PWB (between subject effects)

Table 3 shows the outcome of paired t-test in comparing the pre-test and post-test scores of the experimental group, in terms of IGD and PWB. Tested at <.05 level of significance, the result shows there is a significant difference (*p-value* =.001) between the pre and post-test scores. Post-test results affirm the positive effect and impact of the ACRIP as a treatment program.

Variables	Pre-test		Post-test			
	Mean	SD	Mean	SD	F-value	p-value
IGD	38.50	1.40	17.25	.79	51.88	.001
PWB	126.10	18.96	406.50	19.22	-47.03	.001
PR	21.70	4.93	69.85	3.90	-40.15	.001
AU	18.85	3.33	67.35	3.07	-49.08	.001
EM	23.60	4.24	66.90	3.08	-40.98	.001
PG	20.05	3.03	62.70	3.88	-35.12	.001
PL	22.00	3.40	69.95	4.71	-36.19	.001
SA	19.90	2.83	69.75	4.10	-40.97	.001

Legend: SD- standard deviation, IGD- Internet Gaming Disorder; PWB- Psychological wellbeing;
PR - Positive Relations; AU - Autonomy; EM - Environmental Mastery; PG - Personal Growth;
PL - Purpose in Life; SA - Self-Acceptance

Table 3. Paired t-test Scores from the Pre and Post Tests of the Experimental Group (n=20)

Table 4 p value shows that there is no significant difference between the pre and post-test mean scores of the control group as it was not subjected to any intervention program. The group's pre-test mean scores on the variables of IGD and PWB were almost at the same level as the post-test (IGD pre-test: M =38.45, SD =5.02; post-test: M =38.05, SD =3.97 PWB pre-test: M =124.60, SD =51.68; post-test: M =122.90, SD =48.42).

Variables	Pre-test		Post-test			
	Mean	SD	Mean	SD	t-value	p-value
IGD	38.45	5.02	38.05	3.97	.330	.745
PWB	124.60	51.68	122.90	48.42	.105	.917
PR	21.15	9.01	20.85	8.46	.106	.917
AU	20.25	9.02	20.00	8.50	.089	.930
EM	20.50	9.00	20.20	8.43	.108	.915
PG	20.10	7.52	19.95	7.24	.065	.949
PL	21.50	8.79	21.15	8.13	.124	.902
SA	21.10	8.91	20.75	8.24	.127	.900

Level of significance = p<0.05
Legend: SD- standard deviation, IGD- Internet Gaming Disorder; PWB- Psychological wellbeing;
PR - Positive Relations; AU - Autonomy; EM - Environmental Mastery; PG - Personal Growth;
PL - Purpose in Life; SA - Self-Acceptance

Table 4. Paired t-test Scores from the Pre and Post Tests of the Control Group (n=20)

Cohen's d test measured the extent of the efficacy of the ACRIP after post-test in lowering the level of internet gaming disorder and increasing the psychological well-being of the experimental group. Resulting Cohen's d value (IGD 7.27; PWB 7.23) shows the large effect of the ACRIP.

Conclusion
The ACRIP as an intervention program, which aimed to reduce the symptoms of internet gaming disorder and improve the psychological well-being, has been validated as efficacious when adapted to the experimental group of adolescents. Statistically significant differences in the post-test vs. pre-test scores of the experimental group were noted on the variables of internet gaming disorder and psychological well-being using the corresponding measurement scales. Results of various tests consistently showed remarkable differences on post-test vs. pre-test scores rendering the design of the ACRIP as a valuable intervention program. With statistics that affirm the efficacy and large effect of the ACRIP, the eight-module intervention program is validated a reliable psychotherapeutic measure that helps rectify IGD and enhance the overall psychological health of adolescents.

The ACRIP was developed as a structured and short-term approach in internet gaming addiction therapy that adapted the theories of mindfulness and cognitive behavioral therapy. It applied the clear concepts of self-awareness and self-acceptance on one's thoughts and feelings; and that distorted or unhealthy thinking patterns should be and can be modified (Langer, 2000) as it prompts inaccurate assumptions about one's present life and future events. People, in general, are not fully conscious of what their thoughts and emotions are. The mindfulness technique grounds people to the underlying thoughts and emotions that cause their problems and these are very hard to face especially among adolescents. The purpose of the development and testing of the effectiveness of ACRIP is to help adolescents overcome the symptoms of IGD through cognitive restructuring. Cognitive restructuring is the key in altering these negative cognitions. The foundation of these positive thoughts and emotions need to be strengthened to become embedded in one's psychology and which ultimately improves overall well-being long term.

Ryff's psychological well-being scale was used to measure the state of wellness of the participants in each of the six areas or dimensions of their psychological well-being. These six factors that lead to positive functioning include a) autonomy, (b) environmental mastery, (c)

personal growth, (d) positive relations with others, (e) purpose in life and (f) self-acceptance (Ryff, 1995). The areas where participants were found weak at and contributed to their poor state of psychological health were probed. Looking at the pre-test scores of the experimental group in each dimension of PWB, it can be noted that the gaming adolescents were low in self-acceptance and autonomy or freedom from external influence. By educating them on the concept of mindfulness and how its application will benefit them in fully understanding and addressing their issues, participants were able to identify and open up their concerns in these life areas. The root cause of their negative thoughts and problems were analyzed and appropriately addressed during the intervention. On the sub-conscious and conscious level, differences in cognition are person-specific. These differences are the driving force between what they perceive and choose to decide. Participants were individually assisted in their thought or concept formation about themselves and of the world.

One of the key issues among the participants was low self-confidence. For some, low self-esteem drove them to play online to build their confidence, which was acquired when they level up or advance in the game. Performing well or excelling in the game validated their self-worth. For others, low self-esteem was rooted on lack of belongingness in their circles. On these sampled instances, the program helped the adolescents restore belief in themselves through cognitive restructuring. The participants were guided in identifying their strengths such that they see themselves in a positive light. They were also asked from whom they sought self-validation such that if they seek this from outside of themselves, reasons for lack of self-acceptance were explored. They were engaged in different activities that molded or helped them form new thoughts or perspectives of themselves until a positive change in mindset was achieved leading to improved overall psychological wellness.

Weakness in the dimension of autonomy or lack of self-control easily swayed adolescents to play uncontrollably despite knowing its ill effects. The ACRIP trains individuals to become mentally and emotionally resilient, to take control of their thoughts and feelings as these are what cause them to behave and function the way they do in the real world. An individual perceived control of himself has been shown to positively lessen stress and affect health (Langer & Chanowitz, 1981). Thus, the correct mindset and attitude, mindfulness on the possible consequences of their actions, and the ability to recognize and choose the better option for themselves enable them to decide and do what is right. Perceived control is not possible when a person acts mindlessly.

The statistically significant and positive impact of the ACRIP on the experimental group of adolescents substantiates that ACRIP is an efficacious remedy and demonstrates potential for long-term effectiveness. There is no doubt that from an addictive state of gaming disorder and poor mental and emotional health, the intervention ACRIP played a big role in contributing to the holistic enhancement of psychological well-being of the adolescents thereby reducing the symptoms of IGD. Indeed, the use of interventions applying techniques such as mindfulness, cognitive behavioral therapy (Li & Wang, 2013; King & Delffabro, 2014) and cognitive restructuring together with counseling and social skills training have been instrumental in countering IGD and poor psychological well-being.

The ACRIP as an intervention program was designed and executed as a group activity. It can, however, be implemented on an individual level. During the program, the participants have expressed hesitations and were observed feeling uncomfortable discussing their feelings and experiences. For this reason, an individual or one-on-one engagement were held as needed. The application of ACRIP as an intervention program is mainly to address the dysfunction

brought about by compulsive online gaming or IGD and poor psychological well-being. Review of potential difference in mean scores at pre-test and post-test in terms of age, gender, gaming profile and time spent gaming of the test groups is a limitation of the current study. This study suggests that other factors contributing or causing the adolescents' poor psychological well-being need to be prudently explored, considered and analyzed such as peer pressure, family problems and personal struggles.

Lastly, to maximize the benefit of the ACRIP as an intervention program for IGD given that it has been found efficacious among adolescents, it can be employed on other age groups (children, adults and older people). Some necessary modifications may need to be put in place to meet the needs of the target population in consideration of possibly different key issues that will be used as program themes for each module. The impact of gender difference, and result difference if participants are not enrolled in school and conduct of follow through after the completion of the ACRIP are recommended for future research. These did not form part of the on-going research as these may entail examination of other constructs and a thorough investigation of the new case at hand.

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Corresponding author: Georgekutty Kuriala Kochuchakkalackal
Email: frgeorgekuttymcbs@gmail.com

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