EXTENDING PSYCHOLOGICAL CAPITAL - MENTAL HEALTH RESEARCH FRAMEWORK: ROLE OF SOCIAL CAPITAL

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ABSTRACT

While there is research evidence for the relationship between psychological capital (PsyCap) and mental health, what remains unclear are the boundary conditions that can play an important role in this relationship. Drawing from Conservation of Resources theory, this research investigated the moderating role of social capital in the association between PsyCap and mental health in a non-clinical sample of 171 college students in the United Arab Emirates. Results indicated that PsyCap and social capital positively influenced mental health, and the interaction effect of PsyCap and social capital was positively significant on mental health. Highlighting the enhancing role of social capital, the study concludes that with higher levels of social capital, the positive relationship between PsyCap and mental health is enhanced. Implications of the study on prevention and promotion of mental health are discussed

Key words: Psychological Capital, social capital, college students, mental health, mental health promotion, conservation of resources theory

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1. INTRODUCTION

‘Global mental health’ (2018) reports that 1-in-7 people (around 11-18 percent) worldwide suffer from mental or substance use disorders. Given the known under-reporting of mental health disorders across most countries, the severity of this issue has not surfaced to a full extent (Ibid.). In the Arab world, mental disorders have been identified as one of the leading causes of disability (Maalouf et al., 2019). Strikingly in the United Arab Emirates (UAE), 12.29 percent of the population is affected by mental health and substance abuse disorders (Global mental

health, 2018). The common mental health disorders such as depression and anxiety are reported at a higher level in the UAE amongst the Arab population (Depression, 2017). Among youth, studies indicate that college students have higher mental health issues as compared to their peers (Ahmadi, Ahmed, Bayoumi, Moneenum, & Alshawa, 2012; Bayram & Bilgel, 2008; Stewart-Brown et al., 2000). Stressful life events, daily hassles, and academic-related stressors are some factors that affect mental health of college students (Reyes-Rodríguez, Rivera-Medina, Cámara-Fuentes, Suárez-Torres, & Bernal, 2013; Ross, Niebling, & Heckert, 1999; Tajalli & Gambar Panah, 2010). The onset of mental health disorders occurs at early stages of life (Kessler, Amminger, Aguilar-Gaxiola, Alonso, Lee, & Ustun, 2007), and hence the college students are at high risk of developing mental health issues. It is therefore crucial to understand and promote mental health for this potentially vulnerable group.

Keyes (2002) has conceptualized a mental health continuum with two extreme ends: mental health (positive mental health) and mental illness (negative mental health). The World Health Organization emphasizes on promoting positive mental health and defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community” (World Health Organization, 2005, p.2). The extant studies have focused more on negative mental health, exploring mental disorders, mental illness and behavioral disorders (Keyes, 2005; Mental Health UAE, n.d.). However, the focus of positive mental health in terms of promoting and improving mental health are not fully exploited (World Health Organization, 2005). This shift of focus calls for research on identifying the process that improves mental health (Ibid.).

Drawing from positive psychology literature, a positive psychological perspective can enhance mental health and well-being (Seligman & Csikszentmihalyi, 2000). Grounded in positive psychology, psychological capital (PsyCap) can act as a personal resource to strengthen mental health. PsyCap is about “who you are” and “what you are becoming” (Luthans, Youssef, & Avolio, 2007a, p.21). It is conceptualized as a higher-order construct comprising four distinct psychological resources (Ibid.). “HERO within” is an acronym given for these psychological resources - hope, self-efficacy, resilience and optimism, together called as PsyCap (Luthans, Youssef, & Avolio, 2015, p.3). Hope is a positive state that motivates to achieve success by pursuing goals and changing pathways to attain goals if required (Snyder, Irving, & Anderson, 1991). Resilience is an individual’s ability to “bounce back” from a difficult situation (Richardson, 2002). Optimism is a tendency of people to expect that good things will happen to them (Carver & Scheier, 2002). Self-efficacy is the employee’s confidence about his or her abilities to successfully execute a specific task within a given context (Stajkovic & Luthans, 1998). Each sub-construct of PsyCap can positively influence individual, team and organizational outcomes, but the whole (all four sub-constructs of PsyCap together) is better than individual sub-constructs (Luthans et al., 2007a).

Previous meta-analysis and reviews have suggested that there is a relationship between PsyCap and several individual, team and organizational variables (Avey, Reichard, Luthans, & Mhatre, 2011; Dawkins, Martin, Scott, & Sanderson, 2013; Newman, Ucbasaran, Zhu, & Hirst, 2014). Fred Luthans, the pioneer in the area of PsyCap research, predicted the agentic nature of PsyCap on health and wellness (Luthans, Youssef, Sweetman, & Harms, 2013). There is empirical evidence in organizational research that PsyCap has a positive impact on mental health (Avey, Luthans, Smith, & Palmer, 2010; Krasikova, Lester, & Harms, 2015). But, the examination of PsyCap and its impact on outcome variables among the student population is relatively less (Liran & Miller, 2019).

Amongst the studies that have examined student population, PsyCap has been found to positively impact student’s GPA (Luthans, Luthans & Jensen, 2012; Vanno, Kaemkate, &

Wongwanich, 2014), academic performance (Luthans et al., 2012; Ortega-Maldonado & Salanova, 2018), study engagement (Siu, Bakker, & Jiang, 2014), academic adjustment (Liran & Miller, 2019), positive emotions (Avey, Wernsing, & Mhatre, 2011), physical health, life satisfaction (Rioli, Savicki, & Richards, 2012) and well-being (Avey et al., 2011; Khan & Husain, 2010). Researchers have highlighted that positive association exists between PsyCap and mental health among college students (Finch, Farrell, & Waters, 2020; Nafees & Jahan, 2017; Rioli et al., 2012; Selvaraj & Bhat, 2018). There is a dearth of research on the impact of PsyCap on mental health in the Arab world including the UAE, especially for college students. The study on the influence of PsyCap on mental health is hence pertinent among college students in the UAE.

Researchers have suggested exploring more into the boundary conditions of the association between PsyCap and mental health (Selvaraj, 2015). Notably, Newman et al. (2014) recommended examining the moderating role of social capital in the association between PsyCap and its outcome variables. Extending this line of research by investigating the moderating role of social capital in the relationship between PsyCap and mental health can be a worthwhile contribution.

Putnam (2000, p.19) defines social capital as “connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them.” This is the most frequently applied definition of social capital in the field of health sciences (McKenzie & Harpham, 2006). Putnam (2000) has distinguished two important forms of social capital - bonding social capital and bridging social capital. Bonding social capital explains about the sum of resources obtained from social networks and trusting relationships among members with homogenous social identity like friends, colleagues, and family. Bridging social capital includes social networks and trusting relationships with members having heterogeneous social identity.

Studies have indicated that social capital has a positive impact on health and well-being of an individual (Gilbert, Quinn, Goodman, Butler & Wallace, 2013; Islam, Merlo, Kawachi, Linstorm & Gerdtham, 2006; Kawachi, Subramanian & Kim, 2008). Magson, Craven, & Bodkin-Andrews (2014) indicated that social capital is an influencing factor in maintaining mental health of adolescent students. Both formal or informal social relationships and trust have an influence on mental health during adolescence and later life (Bond, Butler, Thomas, Carlin, Glover, Bowes, & Patton, 2007; Rose, 2000). These evidences affirm the line of research that demonstrates the association between individual’s social capital and improved mental health.

According to Cohen and Wills (1985), social support can act as a buffer in the linkage between stressful events and mental health. Khan and Husain (2010) found empirical evidence that social support can act as a buffer in the relation between PsyCap and well-being. Since social capital is much more than social support, it can act as a stronger agent in the PsyCap-mental health relationship. Social capital is an amalgam of social support, social networks, and interpersonal relationships that build trust, values, co-operation and sense of belongingness (McKenzie & Harpham, 2006). Social capital is considered significant for providing sustainable competitive advantage (Luthans & Youssef, 2004). Magson et al. (2014) suggested the buffering role of social capital on mental health issues. To the best of our knowledge, social capital has not been explored as a moderator in the relationship between PsyCap and mental health.

The purpose of the current research is to examine social capital as a moderator in the association between PsyCap and mental health among college students in the UAE. Our theoretical contributions include firstly, examining the impact of PsyCap of college students in improving their mental health. Secondly, we advance PsyCap literature by examining the boundary condition of the relationship between PsyCap and mental health. Thirdly, we

contribute to the social capital literature by exploring its role as a moderator in the PsyCap and mental health relationship. Fourth, we add to the literature of these variables for college students, where such studies are limited.

1.1 Hypothesis Development

There is empirical evidence that PsyCap positively influences mental health of individuals including college students (Finch et al., 2020; Nafees & Jahan, 2017; Riolli et al., 2012; Selvaraj, 2015; Selvaraj & Bhat, 2018). This relationship is in accordance with Conservation of Resources theory (Hobfoll & Schumm, 2002), advocating that people high on one resource (PsyCap) are often high on other resources (mental health). However, there is a need to identify boundary conditions that can impact PsyCap and mental health (Selvaraj, 2015).

capital Researchers have confirmed that high social capital is useful in maintaining mental health across different age groups (De Silva, McKenzie, Harpham, & Huttly, 2005). A study among public sector employees in Finland found that the individuals with low self-reported social capital experienced higher levels of depression (Kouvonen et al., 2008). Read and Laschinger's (2015) study on nurses in Ontario found the influence of relational social capital on mental health. In a meta-analysis, Xue, Reed and Menclova (2020) ascertained that social capital is related to health outcomes such as mortality, disease/illnesses and depression. Magson et al. (2014) study among adolescent students have highlighted that high social capital stemming from family, peers and neighbors was associated with decrease in mental health issues. Similarly, Aldridge, Halpern and Fitzpatrick (2002) (as cited in Magson et al., 2014) reported that an individual's bonding social capital has the highest influence on mental health. Researchers have indicated that social capital can serve as a buffer for preserving good mental health (Hobfoll, Freedy, Lane, & Geller, 1990; Magson et al., 2014; Trujillo, Perrin, Sutter, Tabaac, & Benotsch, 2017). In a similar vein, Newman et al. (2014) proposed that the association between PsyCap and outcomes may be stronger for those having higher levels of social capital.

Conservation of Resources (COR) theory contends that resources determine how one appraises and copes with the situation (Hobfoll & Schumm, 2002). It further emphasizes that the situational resources are more important than the personal resources in the coping process (Ibid.). Resources are defined as "those entities that either are centrally valued in their own right (e.g., self-esteem, close attachments, health, and inner peace) or act as a means to obtain centrally valued ends (e.g., money, social support, and credit)" (Hobfoll, 2002, p.307). Through the lens of COR theory, PsyCap and mental health can be considered as personal resources and social capital as situational resources. Building on the theoretical arguments and empirical evidence, we expect that social capital will moderate the relationship between PsyCap and mental health. Hence, we postulate:

Hypothesis 1: Social moderates the relationship between PsyCap and mental health.

2. MATERIALS AND METHODS

2.1 Participants and procedure

The present research has adopted a cross sectional design and the data was collected from under-graduate college students in the United Arab Emirates (UAE). A self-report online questionnaire survey was used for data collection. After getting approval from college administration, an online survey link was shared with the students. The students were informed about the purpose of the study and were ensured anonymity of the individual responses and personal identity. The students' participation was voluntary and withdrawal from the survey was possible if they desired to do so. The survey was open for a period of four weeks during the month of June, 2020. A total of 198 responses were received, out of which 171 were

complete. 43.3% of the respondents were male, and 56.7% were female. The age of the students was in the range of 17 to 21 years and it included students from freshmen to final year.

2.2 Measures

The following standard scales were used to measure psychological capital, social capital and mental health of the students. PsyCap is a personal resource consisting of self-efficacy, resilience, hope and optimism. It was measured using a 12-item short-version PsyCap scale (Luthans, Avolio, & Avey, 2007b). The permission to use the questionnaire for the current research was obtained from Mind Garden, Inc. The questionnaire was “altered with permission of the publisher” to suit the student population. This scale used a six point Likert scale ranging from 1 to 6, where 1 was strongly disagree and 6 was strongly agree. This scale reported to have internal consistency reliability of 0.83 among university students in Spain (Martínez, Youssef-Morgan, Chambel, & Marques-Pinto, 2019). Social capital was measured using an 8-item bonding social capital scale having internal consistency reliability of 0.90. (Wang, Chen, Gong, & Jacques-Tiura, 2014). Bonding social capital refers to how well an individual is attached with their various networks of people such as family members, peers and friends. This scale is a 5-point Likert scale with responses 1 (a few), 2 (less than average), 3 (average), 4 (more than average), and 5 (a lot). Mental health “refers to behaviours, attitudes and feelings that represent an individual’s level of personal effectiveness, success and satisfaction” (Banks, Clegg, Jackson, Kemp, Stafford, & Wall, 1980, p. 187). Mental health was measured using a 12-item General Health Questionnaire having internal consistency reliability of 0.82 for student samples (Ibid.). Reverse coding was done for negatively scored items during analysis. This scale is a 4-point Likert scale with responses 0 (less than usual), 1 (no more than usual), 2 (rather more than usual), and 3 (much more than usual).

3. RESULTS

We first computed descriptive statistics, inter-correlations and internal consistency reliability of the variables of the study using SPSS v.20 (Statistical Package for the Social Sciences). The results of the same are presented in Table 1.

Table 1 Descriptive statistics, inter-correlations and internal consistency reliability

	Mean (S.D.)	1	2	3
PsyCap	4.54 (0.794)	0.895	-	-
SC	3.34 (0.811)	0.695**	0.839	-
MH	2.43 (0.629)	0.571**	0.527**	0.876
Note: N=171, PsyCap is six-point scale, SC (social capital) is five-point scale and MH (mental health) is four-point scale. S.D. is standard deviation, bold diagonal elements is Cronbach’s Alpha values, **p<0.01.				

Smart PLS version 3 was used to test model reliability and validity (Ringle, Wende, & Becker, 2015). Factor loading ranged from 0.573 to 0.824 and were significant ($p < 0.01$). Composite reliability of the latent constructs was greater than recommended value (Nunnally & Bernstein, 1994). Convergent validity and discriminant validity met the recommended

criteria (Fornell & Larcker, 1981). Hence indicating satisfactory construct reliability and validity (see Table 2).

Table 2 Discriminant validity, convergent validity and construct reliability

	PsyCap	SC	MH	Convergent Validity (AVE)	Composite Reliability
PsyCap	0.718			0.516	0.914
SC	0.669	0.716		0.512	0.879
MH	0.550	0.535	0.714	0.509	0.902
Note: SC is social capital, MH is mental health, AVE- Average Variance Extracted, square roots of AVE are given as diagonal elements (bold), inter-correlations among constructs are off-diagonal elements.					

Since there is a possibility of a common method variance (CMV) in self-report measures, Harman's single factor test was performed using SPSS software (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). The results showed that items loaded on to multiple factors and the total variance of these factors was 69.65%. The largest factor accounted only for 33.0% variance, indicating that common method bias was not a major concern for this study. We further did linear regression analysis using SPSS software to check the variance inflation factor (VIF). No issues of multicollinearity were found between the causal relationships.

To test the proposed hypotheses (H1), PROCESS macro (Hayes, 2018, SPSS version 3.4.1) Model 1 was used. The moderation hypothesis was tested using 5000 bootstrapped samples with 95% confidence interval. Table 3 presents the results of the moderation analysis with PsyCap as the independent variable, mental health as the dependent variable, social capital as the moderator variable and gender as the control variable. The direct effect of PsyCap on mental health ($\beta = 0.415$, $t = 4.77$, $p < 0.001$) and of social capital on mental health ($\beta = 0.311$, $t = 3.676$, $p < 0.001$) were statistically significant. The PsyCap $\times$ social capital interaction effect was statistically significant for mental health (H1: $\beta = 0.163$, $t = 2.862$, $p < 0.01$). Since the interaction term was significant (Baron & Kenny, 1986), the proposed hypothesis (H1) that social capital moderates the influence of PsyCap on mental health is supported. When social capital was one standard deviation (SD) below, one SD above the mean and also at the mean level, the effect of PsyCap on mental health was positively significant. This positive effect was strengthened, when social capital increased from -1 SD to +1 SD (see Table 4).

Table 3 Moderation model results with mental health as dependent variable

95% Confidence Interval					
	Estimate	SE	Lower	Upper	t-value
Psycap	0.415***	0.087	0.243	0.587	4.770
SC	0.311***	0.085	0.144	0.475	3.676
H1: PsyCap×SC	0.163**	0.057	0.051	0.276	2.862
Gender	0.020 ^{ns}	0.128	-0.233	0.274	0.156
Note: SC is social capital, ***p < .001, **p < .01. t (0.001, 4999) = 3.292; t (0.01, 4999) = 2.577; t (0.05, 4999) = 1.960; ns is non-significant.					

Table 4 Effect of PsyCap on Mental Health at different levels of social capital

SC			95% Confidence Interval		
Moderator	Effect	SE	Lower	Upper	t-value
Low (-1SD)	0.251**	0.089	0.077	0.426	2.838
Average	0.415***	0.087	0.243	0.587	4.770
High (+1SD)	0.579***	0.118	0.347	0.812	4.917
Note. SC is social capital, based on t (4999), two-tailed test). ***p < .001; **p < .01; *p < .05; t(0.001, 4999) = 3.292; t(0.01, 4999) = 2.577; t(0.05, 4999) = 1.960					

4. DISCUSSION

We proposed that social capital moderates the relationship between PsyCap and mental health among college students. We first examined the direct relationships between (a) PsyCap and mental health and (b) social capital and mental health. Our findings affirm that there is a positive relationship between PsyCap and mental health among college students. Our results echoed with the previous studies (Finch, & Waters, 2020; Nafees & Jahan; 2017; Riolli et al., 2012; Selvaraj & Bhat, 2018). In line with previous studies, we also find evidence from current study that there is a positive association between social capital and mental health (Bond et al., 2007; Magson et al., 2014; Rose, 2000). Our findings affirm the importance of PsyCap and social capital in promoting mental health among college students. These direct relationships are consistent with Conservation of Resources theory (Hobfoll & Schumm, 2002), which suggests that individuals high on one resource (PsyCap/social capital) are often high on other resources (mental health).

Second, we examined the moderating role of social capital in the relationship between PsyCap and mental health. The interaction effect of PsyCap and social capital (PsyCap×social capital) on mental health is significant and positive. Thus, the hypothesis (H1) of the current

study is supported. The results indicate that with higher levels of social capital, the association between PsyCap and mental health is enhanced. The current findings showcase that the influence of PsyCap on mental health is stronger when social capital is high and weaker when social capital is low. In agreement with the proposition of COR theory on the importance of situational resources in the coping process (Hobfoll & Schumm, 2002), we found that social capital, a situational resource can indeed lead to improved mental health.

The stress-buffering model of social support (Cohen & Wills, 1985) strengthens the findings on the moderating role of social capital in our study. Empirical evidence has indicated that social support can buffer the relationship between PsyCap and well-being (Khan & Hussain, 2010). In line with the social support stress-buffering model, we found that social capital can play a significant role in enhancing mental health even in the case of psychologically stressful events. The stressful events can be actual/potential resource loss or failure to gain resources after investment (Hobfoll, & Shirom, 2000). For example, low personal resources (low self-efficacy, low optimism), life stressors, daily hassles, academic pressures can be stressful for the college students. These stressors can impact mental health of the students. We shed light on social capital as a buffer in preventing/reducing the appraisal of these events as being stressful. In this process of buffering, our study indicates that the interpersonal relationships with various homogenous social networks (e.g. family members, friends, peers) would be helpful. The sense of belongingness, trust, support and cooperation that one perceives to gain from these networks provides a protective shield in maintaining good mental health. These social networks can assist in reducing the perceived importance of the stressful events and can also provide solutions for the stressors (Cohen & Wills, 1985).

Our findings extend PsyCap literature, ascertaining social capital as a critical boundary condition in relation to mental health. The study contributes to the social capital literature, highlighting social capital as an important situational resource that contributes to mental health. This research is amongst the few studies that have explored the moderating role of social capital in the relationship between PsyCap and mental health.

4.1 Implications, Limitations and Future Research

Higher education institutions aim to develop knowledge, skills, abilities and attitudes that can empower the students to achieve career success, manage stressors, mental health and well-being (Mather, 2010; Luthans et al., 2012). Our research findings indicate the importance of social capital as a coping mechanism for improving mental health of students. Individuals having higher social capital, especially from friends, peers and family are likely to have better mental health. This highlights the need to acknowledge the importance of social resources in the academic settings.

Social capital has not gained much importance as a resource that needs to be developed among students in the higher education institutions. More attention needs to be given in developing social capital along with personal resources to foster good mental health. Educators, mentors, trainers, counsellors, and academic administrators should take these evidence-based findings into consideration while designing interventions for overall development and well-being of the students. The intervention programs can focus on (a) creating awareness about the importance of social capital, (b) identifying areas to develop social capital and (c) conducting training programs for the students.

While our research study provides a new direction in the PsyCap- mental health research, it has few limitations. First, the sample size of the study is limited, and may not necessarily represent all collegiate students. This may limit the generalizability of the findings. Second, this is a cross-sectional study, the data was collected at a single point in time, and hence cannot confirm causality of the variables. Third, data was measured on a self-report basis, it can lead

to the possibility of common method bias (CMB). However, Harman's single factor test suggests that CMB was not a serious issue in our results. Lastly, our study is limited to the social capital emanating from social networks and interpersonal relationships with family members, peers and friends.

There are certain future research directions that emanate from our results. The future research can validate the current findings with a larger sample to ensure generalizability of the results. It would be interesting to replicate the study in organizational context. In order to predict the true nature of causality, future research using longitudinal design is warranted. Future studies can also examine the role of social capital of college students arising from heterogeneous networks (e.g. teachers). Considering mental health as a growing concern among various population groups, exploring other boundary conditions in the PsyCap-mental health relationship is the need of the hour. Yet another promising area of research is to explore the mediating variables in the PsyCap-mental health relationship.

5. CONCLUSION

The study advocates the importance of social capital in the context of higher education institutions in promoting and maintaining good mental health. Although prior research has established the direct influence of social capital on mental health, the current study contributes in understanding the moderating role of social capital in PsyCap-mental health association. We suggest that the reservoir of social resources would enable individuals to offset the stressors and hence strengthen the mental health of college students.

DECLARATION OF INTEREST

The authors declare no conflicts of interests. The authors alone are responsible for the content and writing of this article.

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