Linking Burnout to Psychological Well-being: The Mediating Role of Social Support and Learning Motivation

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Background: University academic setting consists of specific life stressors such as burnout that influence a student’s psychological well-being. Previous literature has shown the role of social support and learning motivation, but little research is known about how these variables, of social support and learning motivation, can mediate the relationship.

Methods: We recruited 486 participants from three Chinese universities with an age range of 18–35 years. Measures in the study include Maslach Burnout inventory (MBI) for college students, Multidimensional Scale of Perceived Social Support (MSPSS), motivation strategy learning scale, and psychological well-being by Ryff. Ethical approval was gained from the respondents.

Results: Findings suggest that social support plays a significant role in the link between burnout and subjective well-being. Indeed, the chain mediation model of social support and learning motivation significantly indicated the link between burnout and psychological well-being. These findings show that an increase in social support at an educational institute reduces the effects of burnout and enhances psychological well-being.

Conclusion: The study indicates a sound interpretation of psychological well-being and reducing the level of burnout. Subsequent research has found that social support and learning motivation could be an essential variable in calculating the educational success and learning motivation of the students.

Keywords: burnout, social support, learning motivation, psychological well-being

Introduction

In a daily social life, people contact each other. At some stage in life, they either help others or receive their help. Thus, to help each other in many ways could be considered as social support. To defeat the problem, the individual tries to find material or mystical support through this social networking. To smooth the progress of mind and individual happiness, the social support has a significant role in positive psychology. Different aspects, feelings of depersonalization, hopelessness, and emotional exhaustion have been referred to as the familiar terms of burnout, which arose during university life. Indeed, various studies showed that students experience burnout during their study period.¹ However, subsequent research on social support and psychological well-being demonstrated that social support helps to reduce stress, sustain psychological condition at workplace.² ³ In addition, motivation to learn has been considered important to the student learning process. This study intends to see the role of social support and learning motivation as a mediator in the link between burnout and psychological well-being.
Burnout and Psychological Well-Being

Originally, burnout studies have been focused at workplace context, such as profession of human services. However, research on burnout has been linked to educational settings or academic situations. In the literature, burnout refers to the feeling of incompetency in terms of exhaustion and cynicism during student life. Burnout has been defined as a syndrome that consists of three factors: depersonalization, emotional exhaustion, and reduced personal accomplishment. Burnout is linked to main personal dysfunctions, for example, exhaustion, increased drug use, and insomnia. Burnout symptoms include social conflicts, lower efficiency, lower motivation, and dissatisfaction with work, and increased risk of health-related impairments. Several studies indicated that students experience burnout during their study period. Furthermore, studies also pointed out negative consequences such as mental health problems and discomfort caused by student stress in academic work. Research literature indicates that university students represent the future of their families and community. They face stressors in attaining their academic goals and have more demands and burdens. Therefore, these characteristics underscore the significance of psychological well-being of students.

Burnout, Social Support and Psychological Well-Being

One of the most vigorous elements of study in modern times has a social support. Social support help to interact with family, friends, class fellows and many other people through different sides, for instance, instrumental, informative and emotional social support. Social support refers to the experience of being valued, nurtured, and respected by those who exist closest to the individual that may receive support from various sources, such as family, peers, friends, teachers, communities or one’s an affiliated social group. To the extent that stress is an important component of burnout, this research is relevant to the development of a model of burnout among college students. Previous researchers have indicated stress as a predictor of social support among nursing students and act as a buffering among adolescents. For instance, an individual with increased social support under stressful situations shows better psychological well-being as compared to those who have less social support.

Another study also indicates that the mediating effect of social support identified that life stress exerted a significant effect on social support. Consequently, social support mediates the link between life stress and psychological outcome, such as stress and anger. For example, individuals are forced to gain support from their group members who are known to their problematic circumstances, they may show unfaithfulness and resentment and available support may be compromised. Moreover, individuals who perceive they are more blameworthy for their problematic issues may receive less support from others. Previous studies indicated that social interaction and social ties have been linked to better mental health and lower psychological stress. Moreover, asimilar study also suggests that better social interaction may positively relate to a lower level of mental illness. Literature lacks the role of social support in the context of burnout and psychological well-being, yet similar studies shows social support as a protective factor that mitigate the effect of stress on one’s physical and psychological health. Studies also indicate that burnout may be contagious and perpetuate through social networks. Extensive literature suggests a strong link between perceived social support and student’s well-being, such as social support reduces level of stress and depression among youth. Therefore, the mediating role of social support has become more significant in recent times.

Past studies suggested that lack of social support leads to students’ mental health problems. In an educational setting, pressure of higher education may become a person’s extra emphatic to burnout. Students who represent low emotional relatedness to others or may lack social connections with others may interact with both physical as well as mental issues. Moreover, learners attachment to their families that plays a major role in supporting the learners’ decisions to prioritize their learning. Indeed, literature and empirical research has indicated a link between social support and students’ psychological problems. Therefore, the study tries to understand the role of social support in understanding students’ psychological problems from the following aspects. First, social support may be very important to the individual’s life. Inadequate social support has been linked with many psychological issues, such as loneliness, depression, and anxiety. Second, social support may be reviewed against life stress as a buffer, as well as health and wellness mediators for promoting physical and mental health. Research has also found that social support helps in protecting an individual’s life crisis, for example, major stress and bereavement, which moderates these stressors linked to psychological well-being. Lastly, after reviewing the literature it may assumed that social support may protect...
and moderate the effects of stressors such as burnout on psychological wellbeing in one’s life. Therefore, the current study will attempt to understand social support as a mediator in the link between burnout and psychological well-being.

**Burnout, Learning Motivation, and Psychological Well-Being**

Students’ motivation to use the theory of convergence of the development within the individual has been determined by factors originating from within and factors that come from outside oneself. Motivation considered an internal process that is one of the main factors that determines the success rate of student learning. Motivation has been important in determining how many students will learn from a learning activity or how much they absorb the information presented to them. Students who are motivated to learn something will use higher cognitive processes in learning the material, so that they will absorb the material better.

Motivation for learning has been considered an important factor in education. Motivation refers a force that leads a student to perform academic responsibilities and better learning processes. If knowledge is considered being self-constructed, referred by learning theory by constructivist, learning motivation has been assumed the crucial factor for task accomplishment. Some researchers have distinguished motivation in terms of intrinsic and extrinsic. While distinguishing these two terms, intrinsic motivation refers to a learning of something because of enjoyment and interest in learning, while extrinsic learning motivation refers to learning something because of certain ends, for example, to get a better place, to achieve a higher position in the class. In the literature, motivation has been considered as an influencing factor for students learning at university level. Students that were more intrinsically or autonomously motivated performed and showed more significant outcomes in learning, for example, better adjustment to institute, reduced stress level, and high in persistence.

According to the theory of self-determination, autonomy in human beings is said to be a fundamental psychological need. Burnout was also associated with a higher dropout from university or college. Burnout among students also leads to low motivation, a high rate in absenteeism, higher dropout percentage, and adverse academic performance.

Indeed, self-determination theory postulates that motivation falls into the continuum that behaviors autonomously reflect motivation. Recent research provides motivation as a critical factor for the psychological well-being of an individual. Self-determined motivation among Chinese adolescents positively predicts academic success and better life satisfaction. In addition, the motivation has positive implications for well-being in both individual as well as collectivistic culture. Moreover, motivational orientation also influences an individual’s adaptation to university, lowers the stress and mental health problems. Therefore, the current study sought to determine the link of burnout, learning motivation, and psychological well-being. In view of the previous literature, we concluded that learning motivation would mediate the link between burnout and psychological well-being. This indicates that the literature has not explored learning motivation as a mediator variable in the context of burnout and psychological well-being.

**The Present Study**

The aim of the current study is to verify the mediating role of social support as a social network mediation model and learning motivation concerning the mechanism of burnout linked to psychological well-being. First, our study could be noteworthy as it uses a sample of 486 Chinese university students with an age range of 18–35 years who may face burnout and consequently have low psychological well-being. It will uncover the link between burnout and psychological well-being and students may get help to understand and improve it. Second, university academic setting consists of specific life stressors; therefore, social support and students’ relationships play a crucial role. Research also supports that social support as a buffering effect in the link between stressors and strains of burnout. Literature on cross-cultural psychology suggests various models, such as social networks or related to social support context that could mediate the link between burnout and psychological well-being. Therefore, social support not only helps to reduce life exhaustion but also increases mental health of students, such as psychological well-being. Third, past research lacks regarding social support and learning motivation as mediators as little research has been conducted in the context of burnout and psychological well-being. Fourth, the use of a chain mediation model could help to understand the combined effect of both social support and learning motivation in the link between burnout and psychological well-being. Fifth, the mediating model may also examine the independent effect of social support and learning motivation in this study, as this will help to determine which factor plays a more important role.
In sum, four specific hypotheses are proposed based on the previous studies as follows: (1) burnout will be significantly linked to psychological well-being; (2) social support will mediate the association between burnout and psychological well-being; (3) learning motivation will mediate the link between burnout and psychological well-being; and (4) social support-learning motivation will mediated burnout-psychological relationship through the chain mediation model. The hypothesized model is given below.

Methods
Sample and Procedure
About 486 university students (286 males and 200 females) completed the study survey. Participants were between the ages of 18 and 35 years with mean age of 26.5 years. All the participants were from three Chinese Universities (Shaanxi Normal University, Xian International Studies, and Xian Jiaotong University and medical college). Students from the graduate school participated in the study to capture the experience of academic as well as university life exposure.

All the participants were enrolled at institutes at respective universities. Participant's demographic information (age, gender, and education level) and all questionnaires (burnout, students motivation, social support and psychological well-being scale) were used to collect the data.

Ethical Approval and Informed Consent
Ethical approval was obtained prior to start the research. Written informed consent forms were provided to all participants along with the main questionnaires. Participants were briefed about the research, and questionnaires were handed over to them. They were also informed that if they did not want to continue the survey, they could withdraw at any time without any penalty. All the respondents understood the study purpose and participated with written informed consent. The study received approval from the Shaanxi Normal University Ethical Committee (project ID: 09YJCXLX014).

Instrument
Burnout Scale
To measure Burnout, a modified scale of Maslach Burnout inventory (MBI) for college students was used. This modified version can be expected to assess the high possibility of burnout among college students during their studies. MBI has five-point rating scale that ranges from completely agree to disagree completely. The Maslach Burnout inventory uses a 15-item scale including three subcategories; emotional exhaustion, consisting of five items; cynicism with four items; and diminished efficacy with six times. Previous studies have reported internal consistency and test-retest for MBI for student’s version. Alpha coefficients for emotional exhaustion, cynicism, and diminished efficacy respectively 88, 90, and 84. Results of the scale indicate that the more intrinsically a person is involved the chances of burnout would be low. The burnout inventory has been widely used in various disciplines.

Learning Motivation Scale
Learning motivation was measured using a motivation strategy learning questionnaire (MSLQ). Several measures are used to evaluate academic motivation from the motivating part of the questionnaire of motivation strategy for learning: intrinsic motivation (4), external motivation (4), self-efficacy for learning and performance (8), task value motivation (6), learning belief motivation control (4), and test anxiety motivation (5). Learning motivation scale has been used in various empirical studies on different population samples to address both applied and theoretical purposes. The entire questionnaire or its subscales of learning motivation scale has been used. Alpha coefficients from manual of the scale have been noted as inherent motivation scale 0.74, 0.62 for the external, and the task value scale is 0.90, ie the control level for learning beliefs, and 0.80 indicates that the test anxiety scale.

Psychological Well-being Scale
Eighteen items by Ryff and Keyes, based on a seven-point rating response scale was used to measure the construct of psychological well-being. It was measured using an anxiety stress scale. The subscales of psychological well-being have been illustrated in six domains: environmental mastery, positive relationship with others, autonomy, self-acceptance, personal growth, and purpose in life. The scale measures somatic tension and general fatigue related to one’s feelings and stress-related physical symptoms. All items were summed, and scores ranged from 10 to 50, a low score indicates a low level of well-being and a high score reflects high psychological well-being. Eight items were reverse scored. The reliability of psychological well-being for the present sample has been reported as 0.83. Due to the multidimensionality of psychological well-being questioned,
we used psychological well-being as a global score in this study as it has been used in previous studies.\textsuperscript{44,45}

Social Support Scale
Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al, with 12-items, was used to measure social support.\textsuperscript{46} The scale measures social support from their perspectives: family, friends and significant others. Participants rate the scale based on a seven-point rating scale. The scale ranges from very strongly agree to very strongly disagree and a higher score predicts greater perceived social support, and low social support describes a low level of social support. Alpha coefficients and validity of the scale in previous research were found to be good.\textsuperscript{47} A reliability coefficient for family, friends and significant other were 0.82, 0.86, and 0.86 respectively.

Statistical Analysis
The IBM SPSS v24.0 (IBM Corporation, Armonk, NY, USA) was used to analyze the data. Prior to testing the model, we verified the necessary requisites to be compiled for the test. Among 500 respondents, missing values were 2.8%. About 97.2% of the respondents (486 out of 500) had completed the questionnaires. A step-wise process was utilized to delete missing values list-wise, by leaving only the complete set of cases.\textsuperscript{48} All categorical variables such as age, gender and level of education were described as numbers and percentages. Descriptive statistics were also calculated to see the sociodemographic variables. Pearson correlations were used to measure the relationship between burnout, social support, learning motivation and psychological well-being. We applied IBM Amos 21 to test the mediation model. The mediation analysis was performed through Hayes process model and bootstrap processes using 95%CI bias-corrected to analyze the mediating role of the variables as significant. In the analysis, burnout as an independent variable (X); social support and learning motivation as mediating variable (M) variables; and psychological well-being as dependent variable (Y). The Hayes process analysis allows us to test the direct, total and indirect effect. The effect is significant if 95%CI does not include 0 value. According to Fang et al, the 95% bias corrected bootstrap method was more suitable for non-normal data and that is statistically more power as compared to various other methods of analysis while testing the mediation effects.\textsuperscript{49}

The following fit criteria were used assess the model as described by Hu and Bentler.\textsuperscript{50} The Comparative Fit Index (CFI) \( \geq 0.90 \) recommended for acceptable fit criteria.\textsuperscript{51} The root mean square error of approximation (RMSEA) <0.06, suggests the basic model fit to the data.\textsuperscript{50} The Tucker–Lewis Index (TLI) \( \geq 0.95 \) recommended fit for hypothesized model and the standardized root-mean-square residual (SRMR) <0.08 indicating good fit. Finally, the study path diagrams show the hypothesized model for the study variables.

Results
Demographic Characters of Study Sample
Table 1 presents the demographic characteristics of the respondents. Among 486 respondents, the majority of the sample comprised of men (n=286; 58.8%). In terms of age, most of the respondents were between the age of 20 and 25 years (n=336; 69.1%), while only respondents 31 to 35 years of age were (n=18; 3.7%). Regarding level of education, most of the respondents were enrolled in undergraduate programs (n=325; 66.9%) and the lowest ratio were of postgraduate students (n=19; 3.9%)

Descriptive, Alpha Coefficients and Correlation Among Study Variables
Table 2 describes the correlations between all study variables. Alpha coefficients presented in the table are satisfactory. Pearson correlation was computed to see the association among the study variables (burnout, learning motivation, social support, and psychological well-being. Significant positive correlation of all study variables was found.

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**Table 1** Demographic Characteristics of the Respondents (n=486)

| Characteristics      | n (%) |
|----------------------|-------|
| **Sex**              |       |
| Men                  | 286 (58.8) |
| Woman                | 200 (41.2) |
| **Age**              |       |
| 20–25 years          | 336 (69.1) |
| 26–30 years          | 132 (27.2) |
| 31–35 years          | 18 (3.7) |
| **Education**        |       |
| Undergraduate        | 325 (66.9) |
| Graduate             | 142 (29.2) |
| Postgraduate         | 19 (3.9) |

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In this study, we tested the measurement model based on four latent factors including burnout, social support, learning motivation, and psychological well-being with eight observed variables. Results show that all factor loading and study indicators for the latent factors at significant p<0.001 level. The measurement model suggests that latent factors with their respective indicators were well represented and indicated a good fit to the data.

Mediating Analysis
At first, we tested the model 1 to examine social support and learning motivation as mediator in the association between academic burnout and psychological well-being and the data was analyzed. Findings showed the data: \( \chi^2=88.91.83 \) df=27, \( p<0.001 \), RMSEA=0.069, CFI=0.98, TLI=0.97 which was satisfactory. In Figure 1, the mediation model indicated social support and learning motivation as mediator in the link between burnout and psychological well-being.

To find an optimal model, we tested the chain mediation in model 2. For this, we added the path from social support to learning motivation. Indexes of model fit seems to be better \( \chi^2=78.18 \) df=28, \( p<0.001 \), RMSEA (90%CI)=0.063, CFI=0.98, TLI=0.97. The model 2 consists of two mediators (social support, burnout, and psychological well-being) that fit the data. It is important to know that the relationship between burnout and psychological well-being is regulated by social support (95%CI=0.306, 0.467) and learning motivation (95%CI=0.116, 0.243). Therefore, we accept support for multiple intermediaries. In addition to this, a multiple mediator analysis was performed by comparing specific indirect effects to determine which factors have important mediating effects. The process of the bootstrap (in this study, we randomly selected 5000 bootstrap samples) was used to test the mediating effect. The importance of this can produce the most accurate indirect impact confidence interval.53

Table 3 shows the indirect effects in the final model (model 2) and the associated 95% confidence intervals. As expected, independent mediation of social support (95%
CI=0.109, 0.241) is important for the relationship between burnout and well-being. Bootstrap CIs are listed in Table 3. Due to its social relevance (social support=0.171, 95% CI=0.109–0.241) and learning motivation (learning motivation=0.091, 95% CI=0.047–0.144), the indirect on burnout: psychological well-being was significant. Notably, the mediating effect of social support was as strong as that of learning motivation (95% CI=−0.013, 0.165) and this was reported of the difference in the indirect effects. Indeed, the 95% confidence interval contains no null values, suggesting that social support and learning motivation have a significant indirect impact on burnout-psychological well-being relationship. Thus, our hypothesis chain mediation model (social support-learning motivation) was supported and fit chain mediation model was satisfactory (Figure 2).

**Discussion**

In this study, we examined the link between burnout and psychological well-being and the role of social support and learning motivation as mediators. Our study findings show that social support and learning motivation mediated the burnout and psychological well-being relationship. We also found that the study results supported those studies that showed social support such as perceived social support and student’s well-being, such as social support reduced levels of stress and depressions among youth. Therefore, the model indicated that burnout could affect psychological well-being through the chain mediation effect of social support and learning motivation.

Regarding our first hypothesis, the link between burnout and psychological well-being was confirmed by the sample of 486 university students with ages ranged between 18 and 35 years. Findings indicated that burnout as a syndrome has significant effects on both physical and psychological well-being. Therefore, results suggest that burnout was negatively linked with psychological well-being. Interestingly, social support, one of the independent

| Model Pathways                      | Estimated | 95%CI Lower | 95%CI Upper |
|-------------------------------------|-----------|-------------|-------------|
| BRN→ SS→ PW                         | 0.171     | 0.109       | 0.241       |
| BRN→ LMS→ PW                        | 0.092     | 0.047       | 0.144       |
| indEff (SS) minus indef (LMS)       | −0.078    | −0.013      | 0.165       |

Note: Empirical 95% CI does not overlap with zero.

Abbreviations: Brn, burnout; SS, social support; PW, psychological well-being; LMS, learning motivation; indEff, indirect effect.
mediators, provided us with an empirical mediating role in the link between burnout and psychological well-being. In addition to this, it has been suggested that high social support may help to moderate the level of burnout and help to gain support from rich social networks that results in increased psychological well-being.\(^{15}\) Moreover, past literature has shown that the support gained from friends and family has negligible signs of burnout, s as the level of burnout may decrease when an individual receives support from his/her colleagues or group members, for example, social support related with family and friends tend to lead to good achievements in life.

Our study also shows that the mediating role of social support was found to be consistent with the past studies among young Chinese adults, such as in collectivist cultures as seen in China, social support proved to be significantly important for young adults. For instance, Chinese adolescents positively predict academic success and better life satisfaction.\(^{29}\) Hence, the study findings support the notion that social support has a significant role in Asian cultures. Furthermore, literature also indicated that harmonious social links help in developing attachments with others.\(^{3}\)

Regarding our third hypothesis, that the learning motivation mediated the link between burnout and psychological well-being was shown to be significant and findings support our model. The study findings highlight that learning motivation helps to increase the level of psychological well-being of an individual, such as learning environment and collaborative learning relationship and foster educational experience extend students’ academic abilities, lead to enhanced motivation, and may help to overcome mental stress and it may reduce the level of psychological well-being. The study showed satisfactory consistent findings regarding social relationships and richer social support significantly improve the level of psychological well-being,\(^{57}\) particularly in collectivist cultures such as in Asian countries.\(^{58}\) Future study may be required to see the findings in various other cultures.

In sum, the present study attempts to examine the social support and learning motivation mediation model to uncover the link between burnout and psychological well-being. Findings provide support for pathway in the link: the role of social support and learning motivation as mediators that may help to provide an important contribution to the body of knowledge showing an increased psychological well-being in Chinese cultures. It suggests that designing such intervention programs may help to improve experiences with an opportunity to gain enhanced social support and better motivation for learning during their studies.

**Limitations and Suggestions**

It is also important to consider some study limitations associated with the present research while interpreting the results. First, we chose the sample for this current study from Chinese university students; therefore, the findings may not apply to the general population. Second, the measures used in the current study were based on self-report and may have subjectivity. Therefore, multiple appraisal techniques such as longitudinal research designs...
and observational as well as experimental design may help in reducing such biases. The Ryff Scale of Psychological well-being has six domains that were not suggested as the study used psychological well-being as the total score. It is suggested that further study may explore the six domains of psychological well-being. Furthermore, concerning the measure of learning motivation, additional subscales from MSLQ, such as controlling the learning beliefs and goal orientation could also be included. Studies at university level need to recognize the importance of the role of learner affect and engagement in learning.

Conclusion

In conclusion, this study tried to determine that university students may value their psychological well-being as influenced by social support in terms of social support and learning motivation. Hence, findings of the present study have important implications for improving the students’ level of psychological well-being. This finding shows the significance of social support and learning motivation to university students for their enhanced psychological well-being. Finally, the study reveals that burnout is closely associated to psychological well-being through social support and learning motivation, which has implications for students leading to their academic studies as well as for professionals related to the education sector.

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Disclosure

The authors report no conflicts of interest in this work.

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