

Does Anxiety Fuels Spirituality? A Path Model in the Association between Student's Needs and Global Personality Domains

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Abstract: The purpose of this study is to examine the relationship between psychological needs and global personality domains (GPDs). Two hundred fifteen (215) college students were tested for Cattell's (1992) 16 Personality Factors (16 PF) and Elnar's (2015) Scale of Filipino Student's Needs (SFSN-C). Although the main results indicate an average level across all dimensions of GPDs and needs, it was found that GPDs are not correlates of students' psychological needs. However, the need for spiritual enrichment shows a significant negative correlation with student's anxiety. This goes to show that when a person's anxiety depletes, his or her need for spirituality increases, or vice versa. Path analysis likewise confirms the association of a student's anxiety to their need for spiritual enrichment. Meanwhile, it is found that anxiety is the best pattern of conduction with the need for spiritual enrichment and to the rest of the psychological need dimensions. Implications and suggestions for future research are discussed.

Keywords: path model, student needs, global personality domains, anxiety, spirituality.

I. INTRODUCTION

Needs refers to the psychological state that motivate the individual to do a certain action that directs to the production of a behavior [1] and the necessity to satisfy one's need for autonomy, competence, and relatedness is essential for our optimal functioning [2]. In the recent study, it was theorized that there are six major psychological needs that may have relationship to personality traits and these include family attachment, career exploration, self-management, spiritual enrichment, affective integration, and personal autonomy [3], an assumption that intuitively gains support from Self-Determination concept which have publicized how basic psychological needs, where our goals, beliefs, motives, and feelings lie, plays a vital role in our subsequent behavior commonly known as personality [5].

Despite inadequate researches about spirituality as a psychological construct, there is evidence to show that college needs may interrelate with personality domains, including the spiritual aspect of the students and in the same manner with personality traits towards occupational choices [3, 4]. This relations through the landscape of college psychological needs brought to light the notion that spiritual concept is not only a subset of personality but also a rudiment of health and well-being which requires satisfaction in order to adjust properly in any academic conditions [6,7]. In relation to this, some studies exposed the relationship of spirituality toward personality wherein certain degree of spiritual acuity is guided by normal personality [8]. But what is unknown to the study is whether or not personality influences spirituality or the other way around, suggesting that the two may be independent from each other. However, what is safe to conjure is that "spirituality is positively correlated with positive personality traits" and proved to have relationship with better mental health [9] which confirms the initial assumption of the main author of this current research [3]. Conversely, there is also a

strong notion that spirituality is guided by maturity wherein as people age, their spirituality also increase among early and late adults [10] and in the same way, religious heritability increases with age but in terms of age differences, emerging adults' changes largely among younger adults as compared to older ones in terms of spirituality particularly on attending religious activities [10]. Females, in a similar research, exhibit higher spirituality and conscientiousness than males [12].

Moreover, regression analysis found spirituality as the one that mediates between adult depression, childhood experiences, and anxiety [13]. Daily spiritual experience and organizational religiosity of 202 Greek students are also associated to anxiety, social dysfunction, and severe depression [14] while spiritual optimism has association among students having high levels of anxiety [15]. In another study, spiritual belief has association on their increased self-esteem but negatively correlated with depression, current stress, and stress as personality trait [16]. An inverse correlation was also found between spiritual well-being and death anxiety among Korean University students [17].

Despite dawdling generation of research on these areas, the above literature provides ample evidence that psychological needs including the need for spirituality, directly or indirectly, may influence our subsequent behaviors which are measured by certain domains of personality. With this considerable association, this research hypothesized that some domains culled from the scales' items may be found irrelevant or can be seen as less significant if we try to closely look on their relationship using quantitative approach. Thus, the researcher consider path analysis as a valid means to determine its association (psychological needs and global personality domains) so that findings may shed light to the proper formulation of college programs to aid students academically and possibly for psychosocial intervention programs.

II. RESEARCH METHOD

A. Research Design:

This present study is descriptive-correlation method of research. A descriptive research was used since this type of research design intends to provide a schematic conceptualization of a situation as if it is a naturally existing phenomenon [18]. Correlation type of research is shown to have been applied to compare psychological constructs [19]. Operationally, these methods were used to determine significant relations of personality traits and need dimensions of the college students with respect to simulation process and as well as to identify the correct model that fits the relationship of the two variables with the application of the structural equation modeling or path analysis.

B. Participants:

The present study was conducted among 215 college students with mean age ranges of 18 to 30. There are 61 first (1st) year college students involved in the study with a percent of 28.37, there are 38 second (2nd) year college students with 17.67%, 67 third (3rd) year college students with a percent of 31.16, and 49 fourth (4th) year college students with 22.79%. They were chosen using a convenient sampling technique because all college students who are enrolled in the different programs have equal chance to be part of this research regardless of age and sex.

C. Instruments:

The study employed two different types of questionnaires, one measuring the personality traits of the students, and the other is for evaluating the need dimensions of the college students, respectively. One of the instruments employed in the study during the data gathering process was the 16 PF questionnaire fifth (5th) edition developed by Raymond Cattell in 1993. This instrument assesses the global personality domains of the college students which is generally proven highly valid and is widely utilized over the world in terms of assessing personality with strong reliability (.87). In getting the level of personality of each participant, the raw scores were converted into standard ten score (sten) and then, followed the profiling procedure [20].

Another instrument utilized in the conduct of this research work is the Scale of Filipino Student's Needs-College Version (SFSN-C) [3] which measures the needs of the college students. The test comprises of 40 items and records on a 5-point scale. Additionally, the scale was scored with 1 which expresses the option "not at all true to me" to the option 5 which means as the option "very much true to me". SFSN-C has reliability alpha greater than 0.8 for all 9 dimensions and has excellent validity indices. The scale has Score Consistency Index (SCI) which will notify the test administrator how reliable the rated items will be and delineate those who will be faking the test.

D. Data Analysis:

In this study, mean scores and frequency were utilized to measure the levels and percentage of students' needs and domains of personality. On the other hand, Pearson r was used to statistically describe the relationship between the studied variables. Moreover, a path analysis was further used in order to unearth model of relationship of variables and illustrate its degree of association by computing its Pearson r scores. Specifically, correlation of collected items was determined through a Pearson r formula as shown below:

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{N}\right) \left(\sum Y^2 - \frac{(\sum Y)^2}{N}\right)}}$$

where \sum_{xy} is the sum of the product of the paired x and y scores, $\sum x^2$ is the sum of the squared x scores, and $\sum y^2$ is the sum of the squared of y scores.

For the sake of illustration, Fig. 1 is an example of a path model which shows the inner and outer model proposed by Sewall Wright in 1918. The outer model is the exogenous variables while inner model constitutes the endogenous variables. The two are affecting one another and by principle can be affected by other factors (otherwise known as e or errors) which can be outside the presented model.

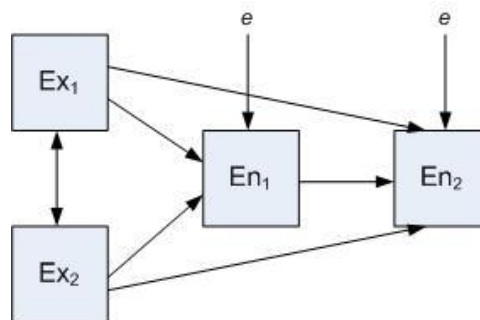


Fig 1: HYPOTHETICAL PATH MODEL

III. RESULTS AND DISCUSSION**E. Students' Level of Global Personality Domains (GPDs):**

One objective of this research is to determine students' level of global personality domains (GPD) using 16 PF scale. The overall result, as shown in Table I, is having a mean sten score of 5.25 which is construed as average. Relating this results to the achievement of students tends to show some subfactors of global personality dimensions such as conscientiousness, neuroticism, and openness as best predictors of GPA [20,21,22] and goal strivings [24], while agreeableness, extraversion, openness, and conscientiousness are personality domains which are important strategies for CIT students in their way towards college completion [25]. Recent path analysis among 795 Italian college students illustrates a model how students' personality contributed to the four domains of positive mental health such as belief-in-self, belief-in-others, emotional competence, and engaged living [26]. As expected, the model seems to show that personality domains are, in one way or another, able to control one's emotions, thinking for others and self, and even one's lifestyles.

TABLE I: STUDENTS' LEVEL OF GLOBAL PERSONALITY DOMAINS (GPDs)

GPD	Mean Score of Standard Ten Score	Standard Deviation	Descriptive Equivalent
Extraversion	4.73	1.017	Average
Anxiety	6.19	1.069	Average
Tough-Mindedness	5.64	0.920	Average
Independence	4.80	1.007	Average
Self-Control	4.87	0.885	Average
Overall	5.24	0.404	Average

F. Level of Student's Needs:

Based on the results shown in Table II, it shows that students have varied levels of needs: Family attachment, spiritual enrichment, self-management, and personal autonomy are considered as least need of the students, while affective integration is slightly a need of the students, but career exploration remains to be a strong need for them.

TABLE II: LEVEL OF STUDENT'S NEEDS

Need Dimensions	Mean Score of Stanine Score	Descriptive Equivalent
Family Attachment	2	Not a Need
Career Exploration	9	Very Much a Need
Spiritual Enrichment	3	Not a Need
Self-Management	3	Not a Need
Affective Integration	4	Slightly a Need
Personal Autonomy	2	Not a Need
Overall	4.78	Slightly a Need

Despite several considerations why some needs among the students are low, several studies point out the value of satisfying various needs in schools. For instance, there were diverse types of needs commonly possessed by college students and these include self-enhancement, orientation/control, pleasure, and attachment [27]. Family connectedness is another need shown to have impact to well-being and health of adolescents [28,29] wherein if taken into consideration, the school's developmental mentoring embodied with connectedness with family, teachers, school, and peers can promote student's achievement in school [30]. When applied to Business College students, exploring careers through internship leads to an improved college performance and better job offers [31]. Self-management is likewise found essential in academic performance of students [32], while researches claimed that among the African American college students, spirituality (spiritual beliefs) is positively associated with their academic performance [33,34]. Further, academic emotions have an important connection with establishing better relationship with others, and in school's achievement [34]. Lastly, it was reported that perceived supported autonomy by teachers has been revealed as one of the predictors of having a good performance in school and satisfaction of life in secondary students [36].

G. Correlations Between Global Personality Dimensions (GPDs) and Student's Needs:

Presented in Table III is the data on the association between GPD and needs of the students. It is demonstrated that all global personality scores have no significant association with all the need dimensions and vice versa. For instance, extraversion is not enough to predict all the compared need dimensions, and all the dimensions of needs do not predict extraversion as well. The rest of the GPDs show no significant relationships with the needs of the students and vice versa.

TABLE III: CORRELATION OF NEED DIMENSIONS AND GLOBAL PERSONALITY DOMAINS

	Family Attachment	Career Exploration	Spiritual Enrichment	Self-Management	Affective Integration	Personal Autonomy	Overall_2
Extraversion	.054	.047	.097	.011	-.014	.011	.058
Anxiety	-.011	.030	-.134*	.074	.088	-.002	-.011
Tough -Mindedness	.012	.034	-.036	-.023	.049	.028	.018
Independence	-.116	-.086	-.043	-.109	-.123	-.097	-.112
Self-Control	.040	.056	.127	.071	.018	.018	.057
Overall_1	-.013	.036	-.004	.011	.008	-.024	.001

Comparatively, the present result did not corroborate with other studies since for them extraversion, tough-mindedness, independence, and self-control were revealed to have a positive association with all the basic psychological needs [37,38].

Meanwhile, the table further exposed that anxiety did not significantly correlate with the need dimensions except a very low significant negative correlation with spiritual enrichment is found. This negative correlation however finds support from one research citing anxiety and depression, when applied to 85 advanced cancer patients, to have considerable negative relationship with patients' spiritual well-being [38]. Also, spiritual well-being and religion have an effect on the emergence of anxiety and depression among patients who have spinal cord injury [39].

H. Path Analysis of Global Personality Dimensions (GPDs) and Student's Needs:

Using path analysis, Fig. 2 demonstrates the pattern of correlation of Global Personality Domains (GPDs) affecting the needs of students, particularly in the college level. Counting it from several medical studies, anxiety, depression, and spirituality in patients with advanced cancer has shown negative relationships [39,40,41]. Meanwhile, the figure also shows a direct negative correlation with each of the personality factors except for self-control. Tough-mindedness has low negative correlation with Independence $r=-.312$, and vice versa. It means that the two personality factors negatively (low degree) affect each other in a way that if tough-mindedness increases, then independence decreases or vice versa. It entails the idea that if the student is receptive (low in tough-mindedness), then he/she has high independence, or if the student has low independence (very accommodated), then the student has high level of tough-mindedness.

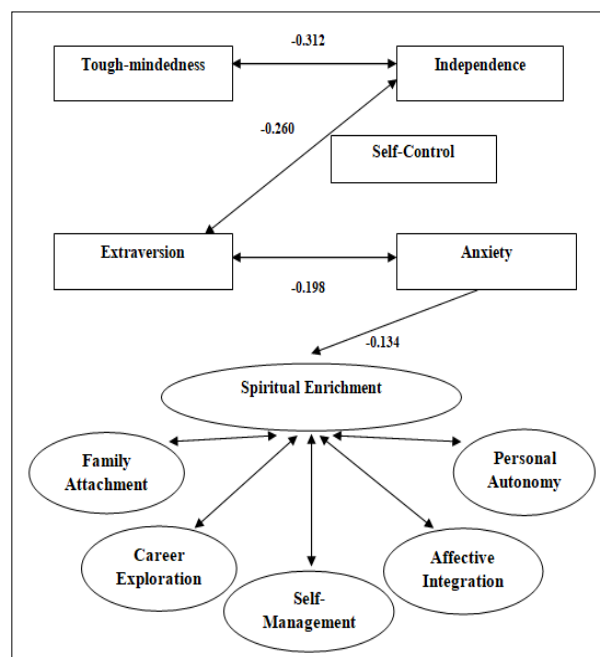


Fig 2: PATH ANALYSIS BETWEEN GLOBAL PERSONALITY DIMENSIONS AND STUDENT'S NEEDS

Accordingly, one of the characteristics of tough-minded individuals includes independence [20] wherein this particular trait, together with resilience, self-disciplined, confidence, and the like, determined the person's tough-mindedness. In the likelihood, it was shown that openness to change (Q1) are both found in the personality measures of tough-mindedness (Q1-) and independence (Q1+) [20].

Further, it was also found out that Independence has significant low negative correlation with Extraversion and vice versa ($r = -.260$). It indicates the two personality factors negatively (low degree) affect each other in such a way that if independence increases, then extraversion decreases or vice versa. It expresses the idea that in the population of students, if the level of independence increases, the student's level of extraversion decreases (introversion) or if the student is extravert, then he/she has low level of independence. High independence is associated with introversion while low independence (very accommodated) is linked to extraversion.

Substantial relationship between GPD and needs was gleaned from several studies [42,43]. In addition, extraversion is negatively correlated to anxiety ($r = -.198$) and vice versa in low degree. It means that introversion leads to high level of anxiety whereas high extraversion directs to low level of anxiety. Thus, this finding is in accord to another relevant research which illustrates anxiety as negative correlates of extraversion, a term synonymous to the degree of sociability [44].

Subsequently, the pattern would now lead to one of the dimensions of needs which are the spiritual enrichment (SE). As shown in Fig. 2, anxiety and spiritual enrichment has a negative correlation of $r = -.134$. It clearly means that low anxiety will lead to an increase in spiritual enrichment or high anxiety will direct the person to have a low level spiritual enrichment. Therefore, spiritual well-being and religion have an effect on the emergence of anxiety and depression [40].

I. Path Analysis on the Best Pattern of Conduction of Correlated Dimensions:

Fig. N shows the correlational path analysis which links with the best pattern of the conduction of dimensions. Spiritual Enrichment (SE) has average positive correlation with Personal Autonomy (PA) ($r=.685$). It means that an increase of one variable will be the increase also of the other variables. It indicates that if the need for Spiritual Enrichment (SE) increases, then the need for Personal Autonomy (PA) will also increase. Relatively, Personal Autonomy (PA) has high positive correlation with family attachment (FA) ($r=.833$). It means that if the need for personal autonomy (PA) rises, then the need for family attachment (FA) will also rise and this result agrees with an analogous research citing that the need for a secure and strong emotional attachment is one of the essential components for developing the healthy well-being of the person [45].

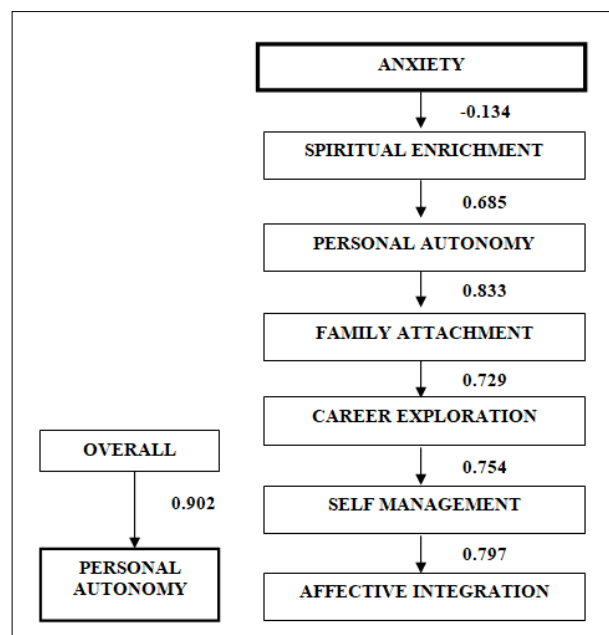


Fig N: PATH ANALYSIS ON THE BEST PATTERN OF CONDUCTION OF CORRELATED DIMENSIONS

The same is true with Career Exploration (CE) towards the Self-Management (SM) and SM towards Affective Integration (AI). Under the same rule, the increase of the former causes the increase of the latter. Interestingly, PA has the highest positive correlation to each need dimensions ($r=.902$). With this, the presence of three basic needs, such as autonomy, competence, and relatedness was rightly disseminated in line with Self-Determination Theory (SDT) [5]. Findings mainly suggest that psychological need is a source for having a healthy psychological growth and for developing an optimal functioning in an individual. Failing to meet this need can lead to ill-being or psychopathology. In the present study, the personal autonomy dimension got the highest correlation with spiritual enrichment due to the reason that autonomy is one of the essential components of basic psychological needs. Hence, programs focusing on the satisfaction of the need for autonomy and spiritual enrichment may create a more positive impact to the lives of the students while they are at tertiary school. Relatively, it is likewise inferred that each need dimensions has a significant correlation with the other dimensions. Henceforth, previous notion highlighting the significance of the six (7) dimensions of needs of college students which have either positive or negative correlation from and among the others [3], gains extensive support.

IV. CONCLUSION

This paper examines the relations between global personality domains (GPDs) and student's needs in which in the initial exploration, it reveals no substantial correlation between the measured domains of personality with students' needs. But, when further analysis using path analysis on the measured variables was performed, the researchers have found significant negative relationship between anxiety and spirituality. In the long run, when correlational path analysis was performed in the aim of finding the best pattern of conduction between variables, researchers found personal autonomy to have the highest positive correlation towards all needs using the spiritual enrichment as the gateway towards anxiety, one of global personality dimensions [3,5], in relation to their belief that needs are part or one of subsets of personality affecting future

behaviors. A special program such as the conduct of developmental learning session about anxiety coping through spiritual enrichment is suggested. Considering the limits of this research, future researchers may consider a larger sample under the same set of population measuring other demographics including but not limited to family history, ethnic origin, and gender preference may further substantiate this initial report. The use of other psychological tools (i.e. emotion, motivation, aggression) perhaps provides greater illumination by associating personality and needs in general, and anxiety against spirituality in particular.

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