Relations of Self-concepts and Perceptions with Motivation and Aspirations of Science Undergraduates on Counselling

WD Chandrasena[1] and WS. Chandrasekara[2]

[1]Science Education Unit, Faculty of Science, University of Peradeniya, Sri Lanka

[2]Institute of Human Resource Advancement, University of Colombo, Sri Lanka

*Correspondence: sagara@ihra.cmb.ac.lk

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සමාජය තුල මිනිසුන්ගේ මානසික ශක්තිය උදෙසා මනෝ උපදේශනය වැදගත් කාර්යය භාරයක් ඉටුකරයි. එනමුදු, ශ්‍රී ලංකා විශ්ව විද්‍යාල පද්ධතිය තුල සිසුන්ගේ අරමුණු සාක්ෂාත් කරගැනීම සඳහා සහයෝග්‍ය ලබාදෙන වඩා කාර්යක්ෂම උපදේශන සේවයක් නොමැතිකම විශාල අඩුපාඩුවකි. උපාධි අපේක්ෂකයන්ට විශ්ව විද්‍යාල අධ්‍යයන කාලය තුල විවිධ ගැටළු වලට මුහුණ පාන්නට සිදුවන හෙයින් ඔවුන්ගේ අධ්‍යාපන හා වෘත්තීමය බලාපොරොත්තු ඉටුකරගැනීම සඳහා සහයෝග්‍ය ලබා දියහැකි මනෝ උපදේශන සේවයක් ඉතා ඇවැසි වේ. මේ වන විට ශ්‍රී ලංකාවේ මේ පිළිබඳව සිදුකර ඇති පර්යේෂණ ඉතා අල්පය. එහෙයින් මෙම පර්යේෂණය තුලින් විශ්ව විද්‍යාල විද්‍යා සිසුන්ගේ මනෝ උපදේශනය පිළිබඳ ස්ව-සංකල්ප හා සංඥානන සමඟ අභිප්‍රේරණය හා අභිලාෂයන් දක්වන සම්බන්ධතා සොයා බැලීමට අරමුණු කර තිබේ. තවද සිසුන්ගේ සාධන මට්ටම කෙරෙහි මනෝ උපදේශනය බලපාන ආකාරය පිළිබඳව සොයා බැලීමට ද අපේක්ෂා කර ඇත. මෙය මිශ්‍ර ක්‍රම හරහා සිදු කරන ලද පර්යේෂණයකි. මේ සඳහා විද්‍යා උපාධි අපේක්ෂක සිසුන් තිස් පස්දෙනෙක් පහසු නියැදීම තුලින් සහභාගි කර ගැනිණ. පර්යේෂණ ප්‍රතිඵල අනුව සිසුන්ගේ මනෝ උපදේශනය පිළිබඳ ස්ව-සංකල්ප හා සංඥානන සමඟ ඔවුන්ගේ අභිප්‍රේරණය හා අභිලාෂ ධනාත්මක සම්බන්ධතා පෙන්වන බව පෙනීයයි. එසේම සිසුන්ගේ මනෝ උපදේශන අභිලාෂයන් ඔවුන්ගේ

විද්‍යා අධ්‍යාපන සාධන මට්ටම කෙරෙහි බලපාන බව පෙනේ. සම්මුඛ සාකච්ඡාවල දත්ත අනුව සිදුකල තේමා විශ්ලේෂණයට අනුව ලැබෙන මානසික සහයෝගයේ ඌණතාවත්, සිසුන්ගේ හැඟීම් බෙදා හදා ගැනීමට ඇති ඉඩකඩ අඩුකමත් හා මනෝ උපදේශන අභිලාෂයන්ගේ වැදගත්කම පිළිබඳව දැනුවත්භාවය අඩුකමත් වඩා වැදගත් කොට සැලකිය යුතු දෑ බව පෙනී යයි. අද දිනයේ දී සූදානම් බව හෙට දිනයේ සාර්ථකත්වය උදෙසා වඩා වැදගත් වන හෙයින් ඉතා හොඳ මනසක් සහිත බුද්ධිමතුන් බිහිකරලීම උදෙසා ශ්‍රී ලංකා විශ්ව විද්‍යාල කටයුතු කිරීම ඉතා යෝග්‍යබව පෙනීයයි.

මුඛ්‍ය පද: මනෝ උපදේශනය, විද්‍යා උපාධි අපේක්ෂකයින්, සව-සංකල්ප, සංඥානනය, අභිප්‍රේරණය, අභිලාෂ

1.   Introduction

Counselling is a process in which the psychological strengths of people are enhanced to meet the challenges in their day-to-day life. Moreover, counselling has been integral to improving the quality of life for humankind. Every sphere of life has been revolutionised by many psychological aspects and issues. Thus, support through psychological strength is a highly important and invaluable resource throughout one's life. According to American Psychological Association (2008), counselling psychologists help people with physical, emotional, and mental health issues improve their sense of well-being, alleviate feelings of distress, and resolve crises. Especially, in developed countries, there are many associations and organizations to enhance psychological strengths through various practices. Generally, psychologists are appointed and appeared in almost all organizations including regular communities. Thus, psychological practices are very common in schools, universities, industries, factories etc. However, the Sri Lankan situation is very primitive as there are no such high standard practices in many organizations including communities in general. Psychologists should be well trained through standard programmes before they start practices. In developed countries, some institutes provide such training facilities through different programmes at different levels such as certificate, diploma, higher diploma, degree, postgraduate diploma, masters, and doctorate. Unfortunately, well-trained counsellors are highly scarce in Sri Lanka due to many issues. These include lack of quality programmes and mal-practising counselling in different ways. Thus, the Institute of Human Resource Advancement of the University of Colombo is providing a greater service to the Sri Lankan context to train people who could become professional counsellors.

Education has a major role in shaping the behaviour of human beings. Psychological foundations are highly important in the effective teaching and learning process. However, it is unfortunate as there is not a proper way of supporting learners as well as teachers to address their psychological issues in the Sri Lankan education system. There are some

counsellors in the Sri Lankan school system. However, most of them are not trained well to guide the clients efficiently and effectively. Even in the University system, there is a dearth of well-trained counsellors in Sri Lanka. Many of them are appointed as academic counsellors based on seniority without proper training to help the subject matter components of the undergraduates. Thus, there are no qualified counsellors to facilitate students to remedy their psychological issues and most of the students are taken for clinical counselling through psychiatrists rather than helping the students in general counselling. Sometimes students are advised to meet health centre medical doctors without practising proper general counselling. At the postgraduate level, this situation has become worse. Some students spend a very stressful situation in their University life. Some others leave their university life without graduation. All these students are facing a lot of difficulties in their academic and private life practices. There is a lack of studies conducted in Sri Lanka especially on University counselling though it is highly important. Thus, this study aimed at investigating the relations of science undergraduates' self-concepts and perceptions with their motivation and aspirations on counselling.

Importance in Counselling

According to Carmen (2013), the institutionalization of the elderly is a complex problem, because a decision of this nature is associated with depression and isolation feeling. Therefore, elderly counselling is very important in this situation. Moreover, counselling of the family members is highly important as they are contributing enormously. Hence, in University life, undergraduates need counselling on their issues to empower their mind for efficient and effective life practices. Vassilopoulos and Brouzos (2012) employed the Client-Centred Approach (CCA) with clienteles experiencing a variety of psychological disorders such as depression and anxiety. Thirteen university students were pre-tested with the Brief Fear of Negative Evaluation scale (BFNE-R) and the Rosenberg Self-Esteem scale (RSE) and then participated in a ten-week PC group counselling intervention. At the end of the involvement, they repeated the same dimension and found the aspects of the group experience that had any impact on them. The results demonstrated that the person-centred group counselling intervention provided an opportunity for students to experience an accepting and safe environment, where they could risk being themselves and talk about their concerns without fear of ridicule or rejection. Hence, students reported feeling better about themselves and establishing more healthy relationships with students, family members and other important persons in their life. Thus, counselling with University students is highly important to enrich their mindfulness.

Kennett (1994) examined the importance of learned resourcefulness skills as measured by Rosenbaum's Self-Control Schedule (SCS) to perseverance in an academic self-management programme. As predicted, students who dropped out of the self-management programme scored low on Rosenbaum's SCS; that is, they had a limited

repertoire of general learned resourcefulness skills. Research has demonstrated that high achievers are very academically resourceful (Zimmerman & Martinez-Pons, 1988). They use efficient problem-solving plans, reflect positively. Even when they do inadequately on an examination, they continue optimistic, estimate the possible causes for the failure, and rearrange study goals and plans. Instead, they look for ways to rectify the problem. Hence, counselling programmes for the learners enhance their talents and mental resourcefulness to face any challenge. Thus, it is important to launch suitable counselling programmes to facilitate learners through positive psychology.

Self-Concepts, Perceptions, Motivation and Aspirations

Psychological variables such as students' self-concepts and perceptions are hypothesised as factors that may influence students' motivation and aspirations. Emotional variables are known as latent variables. According to Strauss and Smith (2009), a construct is a psychological process or characteristic believed to account for individual or group differences in behaviour. As with non-latent variables (commonly referred to as observed or manifest variables), the ability to quantify them accurately is important in scientific research. However, as constructs are not directly observable, they are difficult to measure. For example, it is very difficult to directly visualise 'self-concept', 'perceptions', 'motivation', and 'aspirations', even though people typically have intuitive ideas of what they are. In the social sciences, these ideas that are not immediately measurable are often addressed by describing specific observable attributes that, taken together, define a construct. Thus, by measuring these defined qualities the psychological constructs can also be defined and measured. Given their abstract nature, the importance of theory in measuring constructs cannot be overstated (Netemeyer, Beardon, & Sharma, 2003).

Conceptualising a Construct

Constructs themselves are not directly observed but are "ultimately derived from empirically observed behavioural consistencies" (Anastasi, 1986, p. 5). Constructs should have a relation with observed behaviours (DeVellis, 2003). "Behaviour" in this sense means observable actions such as responses to test or survey items, or any physical activity. Typically, constructs are quantified using surveys that have undergone psychometric evaluation. Construct validation is the process used to determine whether survey instruments measure what they are supposed to measure. Thus, construct validity refers to whether or not a scale or test measures the construct adequately.

Kline (2005) states that survey instruments designed to measure a construct are neither valid nor invalid in and of themselves. Hence, the scores obtained from a survey instrument are also neither valid nor invalid in and of themselves. Although judgements of the reliability of a survey instrument for a sample may be made through statistical measures

such as Cronbach's alpha, there are no such direct statistical measures to make judgements on the construct validity of a survey instrument. Instead, judgements on the construct validity of an instrument are based on the appropriateness of the inferences derived from instrument test scores where the inferences are guided implicitly or explicitly by theory (Cohen & Swerdlik, 2010; Furr & Bacharach, 2008; Thompson & Daniel, 1996). In this study, the reliability has been tested on the scales to check the validity of instruments in a very simple manner. However, further analyses have to be conducted to investigate the validity more effectively. Various researchers (e.g., Byrne & Shavelson, 1996; Harter, 1999; Marsh, 1989) contend that self-conceptions tend to become more differentiated, complex, and better organised as individuals progress from childhood to adulthood.

Defining and Conceptualising Self-Concept

While Bracken (1996, p. 465) conceptualises the self as the "essence of the individual", many researchers have not provided a theoretical definition of self-concept (Marsh & Craven, 1997). However, an examination of some of the available definitions can help provide an insight into this central construct of psychology. Stets and Burke (2005) define self-concept as the set of meanings we have of ourselves, based on our observations, as well as inferences about who we are, based on others' behaviour toward us. Hamachek (1987) explains the self-concept as the cluster of ideas and attitudes we have about our awareness at any given moment. Shavelson, Hubner, and Stanton (1976, p. 407) have defined self-concept as "a person's perception of himself formed through his experience with his environment".

As Burns (1979) notes, self-concept is a construct, as it is not directly observable. Yet constructs can be used to measure human self-concepts, as humans can reflect on themselves as objects (Stets & Burke, 2005). However, self-concept measures can be inaccurate, due to the respondent's tendency sometimes to systematically distort (whether consciously or unconsciously) his or her responses (Piedmont, McCrae, Riemann, & Angleitner, 2000). For example, the tendency for people to give socially desirable responses deserves consideration when conducting research, since such responses have the potential to affect the measurement of the construct, as well as its relations with other constructs (Netemeyer et al., 2003). There are different models of Self-Concepts. They include the unidimensional model, multi-dimensional model, internal/external frame-of-reference model, and reciprocal effects model. Even in counselling self-concepts are highly important as they influence one thought and practices. Thus, University students' Self-Concepts in counselling is very important for better practices in their academic and personal life events. Even in counselling self-concepts are highly important as they influence one thought and practices. Thus, University students' Self-Concepts in counselling is very important for better practices in their academic and personal life events.

The Significance of Perceptions and Motivation

These are also very important psychological aspects. It could be stated as to how something is regarded, understood, or interpreted. Perceptions are also very important psychological aspects of one's practices. Implications for the present investigation, perceptions are very important in counselling as they influence our practices. Thus, University students' perceptions in counselling are valuable for better practices in their academic and personal life events.

Motivation has been defined as "the internal state that arouses, directs, and sustains students' behaviour towards achieving certain goals" (Zeyer & Wolf, 2010, p. 2217). According to Senemoğlu (2004), motivation is the repulsive power of an organism towards attaining a certain goal, towards being able to do the necessary actions in particular conditions, giving energy direction to behaviours, causing an effective advance. It is a power that enables achieving a state wherein one can reach certain goals. Being in, a motivated state results in an individual's ability to maintain interest and attention, in their willingness to make an effort over a necessary period to achieve certain results, focusing on the object in view, not giving up in difficult circumstances, and generally maintaining resolution. It is considered that displaying all these characteristics would influence both the academic achievement and the anxiety level of an individual. Implications for the present investigation, motivation is highly important in counselling as they influence the practices of human beings. Hence, University students' Motivation in counselling is useful for better practices in their academic and personal life events.

Students' Motivation in Counselling

There is a lack of research studies on motivation in counselling in the Sri Lankan context. Thus, this present investigation is to find out the level of undergraduates' motivation on counselling to support University students to accomplish their work by minimizing psychological issues. Marsh, Craven, Hinkley, and Debus (2003) constructed a new measure, known as the School Motivation Questionnaire (SQM), in seven major constructs such as Mastery, Intrinsic, Cooperation, Individual, Competition, Ego, Approach Success, and Avoid Failure with four to six items measuring each scale. In the present study, Mastery, Intrinsic, and Ego Motivation scales were used to investigate students' motivation on counselling. Implications for the present investigation, motivation is highly important in counselling as they influence the practices of human beings. Hence, University students' Motivation in counselling is useful for better practices in their academic and personal life events.

The Significance of Aspirations

Aspirations can be simply recognised as strong desires or ambitions for high achievement (Astone & McLanahan, 1991). As an educational outcome, educational aspirations are linked with higher levels of self-concept (Marsh, 1990a; Marsh & Craven, 1997; Marsh & Hau, 2003). Implications for the present investigation, both Educational and Career Aspirations are highly important in counselling as they influence future practices of human beings. Thus, University students' Aspirations in counselling are highly valuable for their better practices in their academic and personal life events. Whilst various researches have investigated the factors contributing to counselling, a comprehensive investigation of key psychosocial constructs such as self-concepts, perceptions, motivation and aspirations has not been conducted. Thus, this study seeks to identify the relations of undergraduates' Self-Concepts, Perceptions, Motivation, and Aspirations on counselling.

2.   Research aims and objectives

The present investigation has as its central purpose to elucidate the relations of science undergraduates' self-concepts and perceptions with motivation and aspirations in counselling. The study aim, objectives, research questions, and their rationale are presented in this Chapter. Perceptions with Aspirations and Motivation in counselling of science undergraduates to make some valuables suggestions to enhance their psychological well-being. Objectives of the Study are to 1) explore the reliability of the counselling questionnaire; 2) Investigate science undergraduates' Self-Concepts, Perceptions, Motivation, and Aspirations; 3) Compute relations of Self-Concepts and Perceptions with Motivation and Aspirations of science undergraduates in counselling, and 4) Make suggestions to enhance undergraduate psychological well-being. Counselling is very important in empowering the psychological well-being of people. Research findings are highly important for better practices in counselling. However, there is a dearth of research exploring science undergraduates' Self-Concepts and Perceptions with their Motivation and Aspirations of counselling in Sri Lanka. Moreover, there are no validated instruments to check the above psychological aspects. As such, the above study is designed to explore related aspects based on the objectives.

Sampling and Instrumentation

The methodology employed in this study is presented in this Chapter. First, the method of the research is discussed followed by the Data Collection process. Finally, the data analysis process was presented. In this study, a mixed-methods approach was used. As such, both quantitative and qualitative aspects were considered in the data collection and data analysis processes. A convenience sampling technique was used in this study. The

sample consisted of 35 science undergraduates who were following the subject of Science Education. Questionnaires and interview schedules were used for the data collection process. The details of the test instruments are explained below. Components of the Counselling Questionnaire (CQ). The CQ comprises the following measurement scales: the Counselling Self-Concepts (CSCQ), the Counselling Perception Questionnaire (CPQ), the Counselling Motivation Questionnaire (CMQ), and the Counselling Aspirations Questionnaire (CAQ). Table 4.1 provides a summary of these measurement scales, with sample items for each of the subscales that comprise the Counselling Questionnaire. Each of the subscales is measured on a six-point Likert scale (1= strongly agree to 6 = strongly disagree). The CQ survey instrument (see Appendix A, also see Table 4.1 for a list of scales and sample items) is divided into four sections: demographics, the Counselling Self-Concepts (CSCQ), the Counselling Perception Questionnaire (CPQ), the Counselling Motivation Questionnaire (CMQ), and the Counselling Aspirations Questionnaire (CAQ).

Demographics: This section was very brief, and was aimed to collect demographic information (e.g., Year level, gender, subjects followed) about the student completing the survey. In addition, some basic information regarding the students' achievement was collected in the different subject areas, using a 1-5 Likert Scale.

Counselling self-concepts questionnaire scale (CSCQ); This scale comprises survey items related to students' counselling self-concepts. The self-concept is a psychological construct of a complex nature. To address this complexity, advice based on the findings of Marsh and Craven (2006), was adopted. Students' self-concepts were measured by a researcher-devised measure based on the science self-concept description questionnaire (SSDQ) developed by Chandrasena, Craven, Tracey, and Dillon (2014).

Counselling motivation questionnaire scale (CMQ); The CMQ was adapted from a motivation scale developed by Marsh, Craven, Hinkley, and Debus (2003) and Chandrasena, Craven, Tracey, and Dillon (2014) to measure science motivation. Among the different types of orientation in motivation, some researchers have found that ego (Jessie, Philip, Moore, & Lourdusamy, 2003), mastery (Tanaka & Yamauchi, 2000) and intrinsic (Adelman, 1978; Adelman & Taylor, 1983) orientations are significantly correlated with academic achievement. Thus, the CMQ comprises three different motivational orientations: mastery, intrinsic, and ego, in counselling. Counselling perceptions questionnaire scale (CPQ); The CPQ was developed by the researcher considering the undergraduates' nature of ideas, opinions, and attitudes. Counselling aspirations questionnaire scale (CAQ); High achievers are more likely to have clear plans and to plan academic pathways, than lower achievers (Adamuti-Trache & Sweet, 2009). As such, high expectations are important in any discipline including counselling. Educational aspirations and career aspirations in counselling were measured by a scale adapted from aspirations scale Chandrasena, Craven, Tracey, and Dillon (2014).

Procedure

Ethical Considerations; before approaching potential participants for this study, ethics approval was required from the Faculty of Science, University of Peradeniya. Approval was obtained from the Dean's Office, Faculty of Science, University of Peradeniya. Selected science undergraduates were invited to participate in a 20–30 minute survey. Participation was voluntary. All participants were provided with information on the study. All participants were required to sign a consent form before commencing to participate. Based on students' responses to the student questionnaire, a small number of students (i.e., 20% of the total sample of 7 students) were invited to participate in 30-minute semi-structured interviews. Administration of the Survey; A paper version of the survey was developed, along with a consent form attached to the front of the survey (see Appendix A). Suitable dates and the times for the administration of the survey were negotiated with participants. Surveys were administered in pre-booked classrooms, with minimal disturbance to work and procedures. Before the surveys were administered, the necessary instructions and other information were explained to the students. At the beginning of the survey, it was announced to the students that the data collected would be used by the researcher only for research purposes. It was also announced that no individuals would be identified during any phase of the research.

Table 1: Summary of the Measurement Scales

Measurement Scale	Sub-scales	Sample Items
Counselling Self-Concepts Questionnaire (CSCQ)	Counselling Self-Concept (10)	"I am good at Counselling"
Counselling Perceptions Questionnaire (CPQ)	Counselling Perceptions (10)	"I enjoy counselling"
Counselling Motivation Questionnaire (CMQ)	Counselling Motivation Mastery (06)	"I feel most successful in Counselling when I reach personal goals"
	Counselling Motivation Intrinsic (06)	"I enjoy studying for counselling"
	Counselling Motivation Ego (06)	"I feel most successful in Counselling when I reach personal goals"
Counselling Aspirations Questionnaire (SAQ)	Counselling Aspirations Educational (05)	"I hope I continue studies in counselling"
	Counselling Aspirations Career (05)	"I hope I continue my counselling studies"

Note: The number of items for each subscale is given in parentheses after the subscale name

Data Analysis

Data screening and general analyses (descriptive statistics, reliabilities, frequencies, etc.) were undertaken using SPSS 22.0. Information collected from participants in the survey section (quantitative study) was subjected to descriptive statistical analyses through SPSS. The relations of student counselling self-concepts and perceptions with motivation and aspirations were investigated through regression. The data collected through the student interviews were subjected to thematic analysis. Treatment of missing data; data were screened for missing values to determine if such values were missing at random or missing systematically. A multiple imputation framework was used to treat missing values of the data set. Data cleaning; the data cleaning process ensures that a verification procedure is followed, that checks for the appropriateness of numerical codes for the values of each variable under study. This process is referred to as code and value cleaning and is one of the first steps in this analysis stage. Tests of reliability; Cronbach's alpha (sometimes referred to as alpha coefficients) is the most frequently used measure of reliability (Byrne, 2006; Streiner, 2003). However, the use of alpha coefficients for measuring reliability is problematic (see Sijtsma, 2009 for a comprehensive discussion on the problems with Cronbach's alpha) as it is inflated by scale length, so scales with 10 or more items can give an exaggerated alpha value. Further, Cronbach's alpha is based on a restrictive one-factor model (Bentler, 2005), where factor variances and error variances are assumed to be equal. However, despite these limitations, it is customary to report alpha values, and so they are reported in this research. There is no universally agreed minimum threshold for a reliability coefficient (Kline, 2009; Urbina, 2004). However, values of .7 or greater are preferred (Netemeyer et al., 2003), and values of at least .6 are considered acceptable (Aron & Aron, 2003).

3.   Results and Discussion

Basic descriptive statistics, such as means, standard deviation, skewness, and kurtosis for the CQ are presented in Table 2. Since the majority of values for the skewness and kurtosis are close to zero, there are minimal violations in multivariate normality; these are therefore unlikely to impact the confirmatory factor analysis.

Inspection of the descriptive statistics in Table 2 shows that students' mean of Aspirations in counselling is the highest compared to the other variables considered. Thus, students may feel the importance of counselling for their future life as well.

Table 2: Descriptive Statistics for the Counselling Questionnaire (CQ)

	SC	PC	MO	AS
Mean	4.10	4.34	4.07	4.44
SD	0.89	0.86	0.90	1.15
Skewness	-0.43	-0.26	-0.55	-0.87
Kurtosis	-0.24	-0.20	0.28	-0.97

Note. SC = Self-Concepts, PC = Perceptions, MO = Motivation, AS=Aspirations

3.1 The Reliability of the Counselling Questionnaire

Tables 3, 4, 5 and 6 show reliability estimates for the CQ factors. The results of the reliability estimates for five subscales of the CQ for the total sample show acceptable measures, with alpha coefficients ranging between .74 and .94. Thus, acceptable measures of reliability were obtained for the CQ (Aron & Aron, 2003), with alpha coefficients ranging from .68 to .91.

Table 3: Reliability Statistics for Self-Concepts in Counselling

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standard-ized Items	N of Items
.744	.759	10

Table 4:Reliability Statistics for Perceptions in Counselling

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standard-ized Items	N of Items
.901	.902	18

Table 5: Reliability Statistics for Motivation in Counselling

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standard-ized Items	N of Items
	.840	.847	10

Table 6: Reliability Statistics for Aspirations in Counselling

	Cronbach's Alpha	Cronbach's Alpha Based on Standard-ized Items	N of Items
	.941	.944	10

Hence, the subscales of the CQ demonstrate reliable measures for the total sample.

3.2   Science Undergraduates' Self-Concepts, Perceptions, Motivation, and Aspirations

Aspirations in counselling show the highest mean value decreasing the mean values in the order of perceptions, self-concepts, and motivation respectively. However, all the mean values are greater than 4.0 demonstrating considerably higher values. The subscales of the CQ demonstrate considerably greater aspects in Self-Concepts, Perceptions, Aspirations, and Motivation in counselling for the total sample.

The relations of Self-Concepts with Motivation, and Aspirations of science undergraduates in counselling

Table 7:Sub- scale Correlations of the Counselling Questionnaire

	Self-Concepts	Motivation	Aspirations
Self-Concepts	1		
Motivation	.60	1	
Aspirations	.53	.51	1

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

As shown in Table 7 Self-Concepts and Motivation are significantly correlated with r=.60, p<.05. Moreover, Self-Concepts and Aspirations show a significant correlation with r=.53, p<.05 (Table 7). Further, students' Self-Concepts in counselling are predicting their Motivation and Aspirations in counselling with the effect sizes 36.2% (Beta= .60, p<.05) and 28% (Beta= .53, p<.05) respectively.

Hence, Self-Concepts in counselling show significant relations with Aspirations, and Motivation in counselling. Moreover, students' Self-Concepts in counselling predict their Motivation and Aspirations in counselling.

The relations of Perceptions with Motivation, and Aspirations of science undergraduates in counselling

Perceptions and Motivation are significantly correlated with r=.44, p<.05. Moreover, Perceptions and Aspirations show a significant correlation with r=.53, p<.05 (Table 8). Further, students' Perceptions in counselling predict their Motivation and Aspirations in counselling with the effect sizes 19% (Beta= .44, p<.05) and 27% (Beta= .53, p<.05) respectively.

Table 8: Subscale Correlations of the Counselling Questionnaire

	Self-Concepts	Motivation	Aspirations
Self-Concepts	1		
Motivation	.44	1	
Aspirations	.53	.51	1

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

As such, Perceptions in counselling show significant relations with Aspirations and Motivation in counselling. Moreover, students' Perceptions in counselling predict their Motivation and Aspirations in counselling.

Other Positive Relations of the above Psychological Aspects with Their Achievement

It is found that students' achievement in the subject Science Education is predicted by their Aspirations in counselling with the effect size of 13.3% (Beta= .36, p<.05). Table 9 shows the results. Thus, students' achievement in Science Education is predicted by their Aspirations in counselling up to a little extent.

Table 9: Regression of Aspirations with Achievement in Science Education

Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta		t	Sig.
1	(Constant)	1.558	.663			2.351	.025
	AMEAN	.325	.145	.364		2.247	.031

a. Dependent Variable: SE

Note: AMEAN=Aspirations', SE= Science Education

3.3   Findings

Based on the interviews conducted with the students the following themes were formulated. Lack of moral support; most of the students are helpless due to the unavailability of moral support in their University life. University students are stressed due to various reasons such as academic pressure, economical problems, partners' problems, isolation, lack of healthy food, and accommodation issues. However, there is no proper mechanism to support them. Even though there are counsellors they are neither trained nor experience in the field. These are evidenced by students' explanations in the interviews. Lack of opportunities to share feelings; there are not enough opportunities for the University students to share their real feelings. They have a lot that could not be shared with others due to their distrustful and unsafety nature. These feelings and emotions make unrest nature with the University students. Since University students are starting their life as new adults; there is a change in their lifestyle to face challenges in their life.

Due to the change in mentality, there are some problems in bearing their emotions. Lack of awareness of the significance of counselling; many students are not aware that there are support systems in the society for their psychological issues. Thus, they try to bear whatever feelings they have without sharing them with others. This creates a lot of tension with the undergraduates. Some have the misunderstanding that they should not meet counsellors to obtain their support to overcome the issues. Hence, students' ambitions are under a threat in University education. Aspirations on counselling; many students are having the perception that they need counselling throughout their life. When they encounter different problems they feel that they need help from somebody in the community. However, students are having fear of sharing their feelings as the people in the society are different and as such there could be some dangers and threats to their life if

they share their emotions. Thus, there must be a process of proper counselling to enhance the mental strength of the students as they are looking for moral support from society. Hence, facilitation through counselling has become a must even with University students though they are educated with subject-related content.

The above themes are evidenced by students' views and as such, the University should pay attention to the counselling process properly. This would enhance students' well-being to become efficient and effective citizens in the country. Counselling is highly important to enhance the mental strength of anybody especially in experiencing issues in their day-to-day life. Thus, it is a universally important aspect in any moment or any place. Hence, counselling is applicable in every sphere in this world. University students encounter many issues in their University life. Though, the government is funding money to state Universities if the students do not perform well there could be issues in the outcomes through University education. Especially students' issues related to their achievement problems in University education. Hence, counselling could help to strengthen students' mind to achieve their expectations and outcomes through tertiary education. Self-Concepts and Motivation are related to their Achievement and Aspirations in secondary science (Chandrasena et al., 2014). A similar situation was recognized in this study as University students' Self-Concepts and Perceptions are related to their Motivation and Aspirations in counselling. Moreover, students' Aspirations are predicting their Achievement in Science Education. Thus, it is necessary to pay attention to providing necessary moral support for University students through counselling.

4.   Conclusions and Suggestions

Counselling is a highly important practice with anybody in this world as everybody encounters different problems in their day-to-day life. Education is offering enlightenment to all citizenry in this world and as such, University education is also very valuable to study the facts, theories, and principles which govern almost all functions in our day-to-life starting with simple activities to large scale activities in industries etc. To achieve objectives through University education the students must be well-being mentally and physically. Thus, offering moral support to the students through counselling is highly significant in fulfilling their psychological needs. Self-Concepts, Perceptions, Motivation, and Aspirations are some of the key psychological aspects of any person in this world. These are interrelated with each other which could collectively affect the positive psychology of University students. Thus, empowering these aspects through a process of proper counselling is important in enhancing University students' psychological wellbeing. Moreover, Aspirations in counselling increase University students' level of academic achievement as well. Hence, it is suggested to provide an appropriate practice in counselling to empower the psychological strength of University students. This is highly important as preparing today can save us from repairing

tomorrow. There are limitations in this study due to the small size of the sample, limited time duration, and the inclusion of fewer academic matters. Hence, a broad study has to be conducted by avoiding the above limitations to generalize the findings of the study.

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