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The Impact of a Sense of Meaning on Long Term Achievement at an Institution of Higher Learning in South Africa: A Longitudinal Study

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KEYWORDS

ABSTRACT

The study evaluated the relationship between sense of meaning and throughput rate with a random sample of alumnae (N=101) from a university of technology, in South Africa, (age range = 27 to 30 years, females = 73%, majority ethnicity = 70% Sotho speaking). Data were gathered using the Purpose in Life Test (PIL), Life Stressors and Recourses Inventory (LISRES-Y), and Biographical Questionnaire. Multiple regression analyses were performed. The hierarchical F-test was used to determine whether the contribution by a specific variable to the R^2 value is statistically significant. A significant correlation ($p < 0.01$) was found between sense of meaning and throughput rate. On its own, the PIL scores explained 23, 37% of the variance in throughput rate.

INTRODUCTION

The green paper on Higher Education published recently indicates that the South African government plans to increase the number of university students from 900 000 to 1.5 million by 2030 so that they can obtain a participation rate of 23%. In 2011 the country's participation rate was 16% for 18 to 24 year olds (DHET, 2012). The purpose of the green paper is to align the post-school education and training system with the country's overall development agenda. As a result, it is expected that the current 23 public universities in South

Africa will accommodate an additional 650 00 students over the next 17 years. However, a concern still remains that universities are faced with serious problems which require special intervention (DHET, 2012).

One of the problems facing South Africa universities is the relatively low throughput and success rate which was 74% in 2010, compared to a desired national norm of 80%. According to reports only one in five South African students who registered for a three year degree in 2000 managed to graduate in 2003, and 50% of those who registered dropped out (Seepe, 2005). Recent statistics released by the Council for Higher Education report that only 16% of students who registered for degrees in 2005 graduated within the specified time. This figure is well below the national norm of 25% for full-time students studying towards a three year qualification (CHE, 2012).

The green paper emphasises that one of the strategic priorities of university education is the improvement of throughput rates (DHET, 2012). In addition, the green paper mentions that one of the factors contributing to low success rates is inadequate student preparedness for university. Several strategies were suggested by universities to mitigate the problem; however, there seems to be no clear evidence of what the most effective means are. As a result it is necessary that universities should continue to assist underprepared students.

ACCESS WITH SUCCESS

One of the important priorities facing universities is access with success; as a result, universities are seeking ways through which they can ensure that students succeed. For this reason, university administrators are looking at best possible ways to predict academic success in institutions of higher learning, so that they can use them in their admissions process to determine the applicant's possibility of successfully completing their studies (Gifford, Briceno-Derriott&Mianzo, 2006).

It is very important that students should succeed at university because failure has numerous implications, not only for the students, but, for the institutions and society at large (DeBerard, Spielman&Julka, 2004). Reports indicate that students who drop out of universities are costing governments and university a lot of money (DeBerard, Spielman & Julka, 2004).

Coupled with predicting throughput rate is monitoring and ensuring that the motivation levels of students are high especially in the first-year of study which is considered to be the defining time for the rest of their university career (Tinto, 1993). Intelligence and ability are not the only factors which contribute to academic success. Internal motivational

factors also do have an important role to play in ensuring academic success and retention. As a result, strategies to strengthen the student's motivation levels should be put in place because a number of talented young people are failing to achieve on the same level with their academic potential (Balduf, 2009). It is for this reason that a motivational factor such as sense of meaning could be significant in ensuring persistence and better adjustment amongst students (Makola & Van Der Berg, 2010; Mansfield, Pinto, Perente&Wortman, 2009).

Sense of Meaning and Academic performance

Several researchers have made significant recommendations of how university personnel can assist students in their search for meaning, for example in playing a mentoring role, incorporating issues of purpose in life into every aspect of their work with students and much more (Chambers & Parks, 2002; Chickering, 1969; Humphrey, 2005; Moran, 2001; Reisser&Chickering, 1993). However, most of the research which was conducted amongst university students focused mainly on how it relates to psychological issues which may indirectly impact students' retention or attrition such as anxiety, depression, self-esteem, engagement in university campus activities and self-efficacy (DeWitz, Woolsey &Walshe, 2009; Molasso, 2006).

Earlier studies found a significant correlation between meaning orientation and scholastic achievement (Marti & Martin, 1977; Nackord, 1983). The results of a study by Greenway (2005) reported that academic engagement is a strong predictor of success amongst university students and that meaning in life was significantly predictive of a student's level of engagement. A study by Benejam (2006) showed a significant relationship between meaning in life and academic performance amongst 139 graduate students. In a study conducted with first-year students, three variables correlated significantly with academic performance, they are Purpose in life, Grade 12 results, and Parents as a resource; however, it was mainly the variable Purpose in life that showed a significant contribution to the criterion (Makola, 2007). On its own it explained 14, 85% of the variance in first-year academic performance (Makola, 2007). More recently a study by Olivera-Celdran (2011) reported that sense of meaning was one of the variables which contributed significantly to the prediction of Cumulative GPA amongst college freshmen. Thus the study suggests that college freshmen who are more purposeful are more likely to have higher Cumulative GPAs at the end of their freshman year.

In his keynote address to the Pan Pacific First Year experiences Conference Vincent Tinto mentioned that 75% of students who do not complete their studies attribute the reasons

for this to difficulties encountered in the first year of study (Tinto, 1995). The results of a study conducted by Makola and Van Der Berg (2010) revealed that sense of meaning is one of the constructs which helps students to tolerate life stressors more effectively, thus improving adjustment to the life demands, including academic demands in the first year of study. This is due to the fact that the meaning potentials of participants who scored high on the Purpose in Life Test (PIL) are different from those who scored low on the PIL. What is distinctive about participants who scored high on the PIL is that they see meaning in their studies, are more interested in the service they will provide, and they maintain positive attitudes. Thus, students with a high sense of meaning are more likely to persist with their studies (Makola, 2007). On the contrary a study by Olivera-Celdran (2011) reports that even though purposeful life was a statistically significant predictor of academic performance in the first-year of university, this variable is not a statistically significant predictor of persistence. It is for this reason that additional evidence is required to determine whether possessing a high sense of meaning in the first-year, can be a significant predictor of long term achievement.

Goals of the study. The purpose of this paper is to look at the role that can be played by sense of meaning in increasing throughput rates at university. The primary research question was: How good a predictor of long term achievement are the levels of meaning of students in their first-year of study?

METHOD

Research Design

A correlation design has been used with throughput rate as the criterion variable, and meaning in life, parent as a resource and first-year performance as predictor variables.

Research Hypothesis

Statistics indicate that South African students are dropping out of institutions of higher learning at an alarming rate (Macfarlane, 2006). This research investigates the role of a sense of meaning in improving academic success at university.

The researcher postulates that students with high levels of meaning are more likely to complete their studies at university.

The following three research hypotheses formulated were for the study:

- 1 H₀ Sense of meaning is not significantly related to throughput rate.

1 H₁ The levels of meaning experienced by students are positively related to throughput rate.

2 H₀ Achievement in the first-year of study is not significantly related to throughput rate.

2 H₁ Academic performance in the first-year of study is positively related to throughput rate.

3 H₀ Parental support to first-year students is not significantly related to throughput rate.

3 H₁ Support parents provide to students in the first year of study is positively related to throughput.

Participants

Participants were 101 alumnae *from the Faculty of Management Sciences, from a satellite campus of a university of technology, in South Africa*. The research is a follow up of a study conducted with the same participants in their first-year of study to investigate the relationship between students' sense of meaning and the extent to which it influences first-year academic performance (N=101). Participants were selected randomly from the latter faculty because it is the largest of the three faculties, at the satellite campus. There were 150 first-year students in the faculty, and a total student population of 1500 at the satellite campus.

Defining characteristics of the research participants:

- Age (in 2013): group mean (27.38 years) standard deviation (1.29). Youngest participant (25 years) and oldest (30 years).
- Gender distribution: 27 (26.73%) males and 74 (73.26%) females.
- Home language: 71 (70.29%) South Sotho, 18 (17.82%) Xhosa, 5 (4.95%) Tswana, 5 (4.95%) Afrikaans, 1 (0.99%) Tsonga and 1 (0.99%) Zulu.

Data collection

The measuring instruments consisted of the following measures.

Purpose in Life Test (PIL) of Crumbaugh and Maholick (1969). This was administered to measure the meaning potentials of students. The PIL was designed to operationalize Frankl's ideas and to measure an individual's experience of meaning and purpose in life. It is a 20-item scale, and each item is rated on a 7-point scale and total scores therefore range from 20 (low purpose) to 140 (high purpose). According to the criterion provided by Crumbaugh and Maholic (1969), PIL scores of 92 or less are indicative of low meaning, and scores of 112 and

more indicate definite purpose in life, with moderate meaning in between. A Cronbach's alpha coefficient of 0,84 was observed for the study sample. The PIL has also been widely used in the past (Du Plessis, 1982) and more recently (Van Jaarsveld, 2004) in South African studies. In the study by Van Jaarsveld (2004) an alpha coefficient of 0.86 and a test-retest reliability coefficient of 0.85 were obtained for the PIL.

Life Stressors and Resources Questionnaire-Youth Form (LISRES-Y) (Moos & Moos, 1994) was administered to measure a variety of stressors, such as, living conditions, financial problems and social support as well as social resources such as parental support. The questionnaire consists of 209 items broadly divided into two sections, namely life stressors and social resources. The subscales of life stressors (SS) are: Physical Health (PH), Home and Money (HM), Parents (PAR), Siblings (SIB), Extended Family (FAM), School (SCH), Friends (FR), Boyfriend/Girlfriend (BG) and Negative Life Experience (NLE). The subscales for social resources (SR) are: Parents (PAR), Siblings (SIB), Extended Family (FAM), School (SCH), Friends (FR), Boyfriend/Girlfriend (BG), and Positive Life Experience (PLE). A high score indicates a high level of stress or the presence of adequate resources in a specific domain. This measuring instrument has proved to be reliable and valid. The internal consistency index ranges from 0.79-0.88 for Stressor scales and from 0.78-0.91 for the Social Resources scales. The Cronbach alpha-coefficients in a South African study conducted by Wissing (1996) ranged between 0.79 and 0.88 for the life stressors and between 0.78 and 0.91 for the social resources scales.

Biographical questionnaire. A self-compiled questionnaire was used.

Throughput rate. Student records were used to obtain data on students who completed their qualifications, and those who dropped out.

To investigate the reliability of the PIL and LISRES-Y alpha coefficients were calculated for the current sample. The analysis was done with the help of the SPSS computer programme (SPSS Incorporated, 2001) as illustrated in Table 1.

PROCEDURE

There were three stages in the current research study.

Stage1. The first stage was gathering data in the first semester of 2005 with a random sample of 101 first-year students from the Faculty of Management Sciences. The Grade 12 results, PIL, LISRES, Biographical Questionnaire, 2 focus group sessions and individual

interviews were used to gather data in the first semester of the first-year of study. Amongst all other variables included, the outcome of Stage 1 revealed that three variables correlated significantly with academic performance, they are Purpose in life, Grade 12 results, and Parents as a resource; however, it was mainly the variable Purpose in life that showed a significant contribution to the criterion. It was for this reason that the latter variables were used in the longitudinal study.

Stage 2. The second stage was gathering data from the student administrator's office on academic performance at the end of the second semester of the first-year of study. A qualitative and quantitative analysis of the data was conducted, and presented.

Stage 3. The third stage was gathering of data from the academic administrator's office on throughput rate (criterion) in 2013, as well as from the variables which were best predictors of first-year performance in the second stage, i.e. PIL, Parent as resource, and first-year academic performance. Matric Results was replaced by First-year performance as a one of the predictor variables. Subsequently, throughput rate became the criterion variable.

Ethical considerations

Permission to conduct this study was obtained from the Management of Central University of Technology, Free State. All students who participated in this study completed a consent form. Participants were assured that all information would be treated as confidential and anonymous.

The questionnaire was administered by the researcher, and completed individually by the participants. The latter were completed in the first-year of study, in 2005. Data was analysed with a computer software programme.

Insert Table 1 here

It is clear from Table 1 that with the exception of the physical health and positive life events scales, acceptable internal consistency measurements were obtained. According to Nunnally and Bernstein (1994) coefficients of 0.60 and above are considered acceptable for non-cognitive constructs. Although the reliability of one of the scales (Physical health) was not that high, it was decided to keep this scale in the analyses that follow because the coefficient was only slightly below 0.60.

Data analysis

To investigate the research hypotheses, multiple regression analyses were performed. In this case meaning in life, parent as resource, first-year performance are the independent variables, and the students' throughput rate is the dependent (criterion) variable. The method

followed was to first determine the total variance explained by the predictor variables with regard to the criterion (throughput rate). The coefficient of determination or r square was used to express the strength of the relationship between the predictor variables (meaning in life, parent as resource, first-year performance) and criterion variable (throughput rate).

A hierarchical F -test was used to determine whether the contribution by a specific variable to the R^2 value is statistically significant. The way in which this test can be calculated is as follows:

$$F = \frac{(R^2_{y.1\dots k_1} - R^2_{y.1\dots k_2}) / (k_1 - k_2)}{(1 - R^2_{y.1\dots k_1}) / (N - k_1 - 1)}$$

Where

$R^2_{y.1\dots k_1}$ = Quadratic multiple correlation coefficient for the large number of independent variables

$R^2_{y.1\dots k_2}$ = Quadratic multiple correlation coefficient for the smaller number of independent variables

k_1 = Larger number of independent variables

k_2 = Smaller number of independent variables

N = Total number of cases (Van der Walt, 1980).

When the significance of an increase in R^2 is investigated, it is also necessary to calculate the effect size of the contribution by the predictor. The effect size indicates the contribution to R^2 in terms of the proportion undeclared variance of the full model. According to Van der Westhuizen, Monteith and Steyn (1989), the effect size of the individual contributions can be calculated in terms of f^2 with the help of the following formula:

$$f^2 = \frac{R^2 - R^2_1}{1 - R^2}$$

where:

R^2 = proportion variance declared by the full model

R^2_1 = proportion variance declared by the smaller number of independent Variables.

According to Cohen (Steyn, 1999), the following guideline values can be used:

$f^2 = 0,01$: small effect

$f^2 = 0,15$: medium effect

$f^2 = 0,35$: large effect

Both the 5% and 1% level of significance were used in this study. The results that follow were obtained with the help of the GraphPadInstat version 3.10 for Windows, GraphPad Software computer program (GraphPad, 2009).

RESULTS

Descriptive statistics

The descriptive statistics (averages and standard deviations) with respect to all the relevant variables, for the qualitative component, were calculated and are presented in Table 2. The throughput rate was calculated by the number of years it took each student to complete a qualification. Parents as a resource refers to the level of support each participant received from his or her parents, as measured by the LISRES-Y.

The ranges with respect to the Purpose in Life scores of all participants as well as those of participants with high, moderate, and low scores were calculated and are presented in Table 3. From Table 3 we realize the following: Out of 101 participants, there are 52 in the high meaning category, 29 in moderate meaning category and 20 in the low meaning category.

[Insert Table 2 here](#)

[Insert Table 3 here](#)

Figures were used to provide a scenario of participants in respective categories. The percentage of all participants who completed their studies as well as those who dropped out of university is presented in Figure 1. From Figure 1 we come to realize that 59% of participants managed to complete their studies while 41% dropped out of university. Figure 1 further indicates that only 17% of the participants managed to complete their studies within the prescribed period. The accumulative percentage reveals that 48% of students completed their studies in four years. Amongst those who dropped out, 18% left at the end of their first year of study and an additional 5% in the second year.

[Insert Figure 1 here](#)

Figure 2 is the percentages of all participants who managed to complete their studies (N=60). The descriptive statistics indicates that most (70%) of the students who managed to complete their studies are from the high meaning category.

Insert Figure 2 here

The percentages of all participants who dropped out of university (N=41) are presented in Figure 3. 45% of participants who dropped out are from the low meaning category.

Insert Figure 3 here

Figure 4 presents the percentages of all students in the high meaning category; 81% of participants in this category managed to complete their studies, 63% completed their studies in four years, and 19% dropped out. As a result, the descriptive statistics suggests that there seems to be a greater chance of succeeding at university amongst participants in the high meaning category.

Insert Figure 4 here

The percentages of all participants with indecisive PIL scores are presented in Figure 5. From Figure 5 we come to realize that 55% of participants managed to complete their studies, and 45% dropped out. As a result, there seem to be a moderate chance of succeeding at university amongst participants with indecisive PIL scores.

Insert Figure 5 here

The percentages of students who achieved low score PIL scores are presented in Figure 6. The latter (Figure 6) depicts that 90% of participants who fell in this category dropped out of university. From this we can conclude that there seems to be a high possibility of dropping out of university amongst participants with a low sense on meaning.

Insert Figure 6 here

Inter-correlations

Before presenting and discussing the results of the multiple regression analysis, the correlations between the predictor variables and the criterion, as well as correlations between predictor variables will be indicated and discussed. The Pearson's product moment correlation coefficient between the variables is indicated in Table 4.

Insert Table 4 here

The multiple correlation coefficient in Table 4 show that on the 1% level of significance there are significant correlations between the criterion (Throughput Rate) and PIL scores (0,48). No significant relationships were found between throughput rate and first-

year academic performance, and parents as a resource respectively. Inter correlations revealed significant correlations between first-year performance and PIL scores (0, 35) as well as Parents as resource (0, 27). These significant coefficients are all positive, indicating that the higher the first-year performance, the higher their scores in respect of Purpose in life and Parents as a resource.

On the 1% level, there is a significant correlation between Purpose in life and Parents as a resource, in the first year of study. This positive significant coefficient of determination indicates that the higher the Purpose in Life scores, the higher the Parents as a resource. This also seems to suggest that parents play a significant role in the development of a sense of purpose amongst their children. Similar to the findings of the present study, Shek's (1987) study found that both paternal treatment (PT) and maternal treatment (PT) showed a stronger and more positive correlation with PIL scores than with any other measure of psychological well-being.

Multiple Regression Analysis

A multiple regression analysis was performed in order to investigate the contributions of various predictor variables to the explanation of the variance in throughput rate of university students. A summary of the model is presented in Table 5 and the multiple correlation coefficients are presented in Table 6.

[Insert Table 5 here](#)

[Insert Table 6 here](#)

When the contributions of combined variables (PIL scores, Parents as a resource, and First-year performance) to R^2 for the criterion are investigated, the results showed that the predictors together explain 24.64% of the variance in throughput rate or long term achievement. This is significant on the 1% level [$F_{11;89} = 4,96$; $p < 0,01$].

When the contributions of individual predictors (PIL scores, Parental as Resource, and First-year performance) to R^2 for the criterion are investigated, it is clear that it was only the PIL scores which made a significant contribution on the 1% level. On its own, the PIL scores explained 23, 37% of the variance in throughput rate. On the basis of this we can claim that 23.37% of the throughput rate is significantly attributable to the students' levels of meaning in their first-year of study. This means 23.37% of the variation in throughput rate is explained by the regression model. The 76.63% is unexplained and thus acceptable considering the fact that attempts to predict human behaviour are simply harder to predict than a physical process. This contribution has an effect size of 0, 48 indicating medium to large practical value of the results. Thus the contribution of purpose in life can be considered

to be of moderate to strong practical significance. It can be concluded that one predictor contributed significantly to long term achievement of university students, namely sense of meaning. Purpose in life explained such a large proportion of variance in performance because despite being exposed to stressors, in the end it is up to the students to decide how they respond to these. With positive attitudes, they are likely to succeed.

Multicollinearity was also determined. Such high correlations cause problems when trying to draw inferences about the relative contribution of each predictor variable to the success of the model. Thus, each R squared quantifies how well that X variable is predicted from the other X variables (ignoring Y). Variance Inflation Factor (VIF) is calculated from R squared. In the current model, all R squared values are low (<0.75). This means the X variables are independent of each other. Therefore, multicollinearity is not a problem.

DISCUSSION

This research is a follow up on a study conducted with the same participants to investigate the relationship between students' sense of meaning and the extent to which it influences academic performance in the first-year of study. In order to investigate this relationship without bias, the researcher identified other variables, in the first stage of the study, that may also affect academic performance, that is, age, life stressors and resources, and Grade 12 results. Thus, sense of meaning was found to be the most significant predictor of academic performance, in the latter study, which is considered to be the second stage of the current study (third stage). Having found this variable to be the most significant predictor of short term achievement, the researcher deemed it necessary to investigate whether this variable can have a significant impact on long term achievement (third stage). As a result, the purpose of this study is to investigate the role that can be played by sense of meaning increasing throughput rates at university. Once more, in order to investigate this relationship without bias, the researcher identified two other variables that may also affect long term achievement, that is, previous academic performance, and parent as a resource.

From these variables, three null and alternative hypotheses were formulated. In the next section the results of the quantitative study are discussed and related to each hypothesis.

Hypothesis 1 – Purpose in life and Long Term Achievement

A significant correlation was found between purpose in life and throughput rate. As a result, the null hypothesis is rejected and the alternative hypothesis was supported by the

results of this study. Therefore, the students' levels of meaning, in the first-year of study, were found to be a significant predictor of long term achievement. Therefore, the result of the current study confirms Vincent Tinto's findings that, high motivation levels of students especially in the first year of study are considered to be the defining time for the rest of their university career (Tinto, 1993). In addition, the findings confirm those of a study Makola (2007) which revealed that sense of meaning is one of the constructs which helps students to tolerate life stressors more effectively, thus improving adjustment to the life demands, including academic demands. An earlier study by Nackord (1983) also proposed a significant relationship between meaning orientation and scholastic achievement. Lately, results of a study by Greenway (2005) reported that academic engagement is a strong predictor of success amongst university students and that meaning in life was significantly predictive of a student's level of engagement.

The descriptive statistics revealed that only 17% of the participants managed to complete their studies within the prescribed period. This finding confirms the vital statistics released by the Council for Higher Education in 2012 which reported that only 16% of students who registered for degrees in 2005 graduated within the prescribed period. This figure is well below the national norm of 25% for full-time students studying towards a three year qualification (CHE, 2012). The descriptive statistics also reports that, amongst those who dropped out, 18% left at the end of their first year of study, while in a comparative American study 28% of students did not persist to their sophomore year (Olivera-Celdran, 2011).

The descriptive statistics also indicated that, most (70%) of the participants who completed their studies are from the high meaning category, compared to only 4% of those in the low meaning category. When throughput rates are scrutinized within each category, the descriptive statistics reveal that, 81% of participants from the high meaning category managed to complete their studies, and that 90% of participants in the low meaning category dropped out. As a result, the latter finding suggests that participants with a high sense of meaning seem to have a greater chance of succeeding at university, while those with a low sense of meaning pose a risk of dropping out.

The results of the present study indicate that the sense of meaning of first-year students at the Central University of Technology, Free State (Welkom Campus) is significantly higher than the scores reported for comparative British and American samples (Schumbenberg, 2004; Zika & Chamberlain, 1992), as well as those of a South African sample (Moomal, 1999).

Hypothesis 2 – First-Year Academic Performance and Long Term Achievement

No significant relationship was found between throughput rate, and first-year academic performance. As a result, the null hypothesis is accepted and the alternative hypothesis is rejected. Therefore, first-year academic performance was found not to be related to throughput rate. This by implication also means that there is no direct relationship between short-term and long-term achievement. In other words, realizing short term goals does not necessarily guarantee the attainment of long term goals. However, because a significant relationship was found between sense of meaning and academic performance in their first-year and subsequent years, one can conclude that this construct is important in the attainment of both short and long-term goals. This simply means that even though the study found that realizing current goals does not seem to contribute towards realizing future ones, it is only when current achievements are coupled with sense of meaning that future success is possible. From this we can conclude that sense of meaning plays a significant role in persistence. On the contrary, in a recent study by Olivera-Celdran (2011), purposeful life was a statistically significant predictor of academic performance in the first-year of university study but not a statistically significant predictor of persistence.

Hypothesis 3- Parent as Resource and Long Term Achievement

No significant relationship was found between throughput rate and support rendered by parents, in the first year of study. As a result, the null hypothesis is accepted and the alternative hypothesis is rejected. Therefore, the support which students receive from their parents, in the first year of study, is not significantly related to long term achievement. This finding suggests that parental support should not end in the first-year of study, but, should continue until children complete their studies. The finding confirms those of a South African study by Moller (1995), which reports that parental involvement was significantly related to academic performance. In a study by Gonzalez, Greenwood, and WenHsu (2001), a positive relationship was found between parental involvement and authoritative parenting. Parental involvement was also related to a mastery goal orientation. According to Cutrona et al. (1994) parental support seems to function as a buffer during stressful times, it facilitates coping. In a study conducted by Wycoff (1996), there was a significant relationship between emotional support received, especially from mothers (in 90% of respondents), and student's subsequent academic achievement. Parental involvement and support is very important for student success. When students know that their parents are behind them, they are more likely to be motivated to achieving their goals.

The second, as well as, the third stage of this study reports a significant relationship between parental as a resource and high purpose in life scores. This advocates that, parents play a significant role in strengthening the sense of meaning of their children. Thus, considering the role played by this extrinsic motivation factor (parental support) in the development of an intrinsic motivation factor (sense of meaning), the latter discovery suggests that parental support, in the first-year of study, has an indirect relationship with long term achievement.

CONCLUSION

Sense of meaning is an important aspect of one's life and its loss results in existential despair and lack of purpose makes it harder to persevere to achieve the desired goal. When students enroll at university they all expect to achieve, unfortunately some are hindered by meaninglessness. In his keynote address to the Pan Pacific First Year experiences Conference Vincent Tinto mentioned that 75% of students who do not complete their studies attribute the reasons for this to difficulties encountered in the first year of study (Tinto, 1995). Therefore, it is important that feelings of emptiness must be replaced by those of meaningfulness and purpose so that they can excel more.

The present study reveals that a significant correlation was found between sense of meaning and throughput rate. On its own, the PIL scores explained 23, 37% of the variance in throughput rate. This contribution has an effect size of 0, 48, indicating medium to large practical value of the results. Therefore, the findings of this study suggest that higher levels of meaning, in the first-year of study, are a significant predictor of long term achievement. The results of this study added a valuable contribution to the theoretical literature by providing empirical data which measured the direction and the strength of the relationship between these variables.

These results strengthen the previous findings that purpose in life is positively related to academic achievement (Makola, 2007; Olivera-Celdran, 2011; Chambers & Parks, 2002; Chickering, 1969; Humphrey, 2005; Moran, 2001; Reisser & Chickering, 1993; Marti & Martin, 1977; Nackord, 1983; Greenway, 2005; Benejam, 2006). The unique contribution of the study is in revealing that sense of meaning contributes to persistence; in the sense that, a high sense of meaning in the first-year of study has a significant impact to long term achievement. As a result, the findings of this study emphasize that society and universities should not only pay attention to the academic side of students, but also to their affective

(meaning) portion. It is therefore important that mentors, parents and academicians should motivate students to understand the significance of sense of meaning in their lives. This can be done by assessing the levels of meaning of students in their first-year of study and introducing brief meaning-centered interventions for those who achieved low meaning scores.

The results of this study should be interpreted in light of the following limitations. The sample size was small and to this effect not all the stressor and resource subscales of the LISRES-Y were included. The research was limited only to one institution. The study might have had better face validity if it was conducted at different institutions, campuses and faculties. The population and sample of the research are alumnus students, who took part in the first stage of the study, in one faculty. A random sample from all first-year and subsequently all alumnus students could have been more valuable. The inclusion of more variables especially dispositional ones such as purpose in life and other cognitive factors such as aptitude could give a greater understanding of factors that impact on academic performance. The sample was homogenous with regard to race, age, and factors related to the background home environment. The questionnaires were only administered in the first semester in 2005; it would be interesting to know the levels of meaning of students in subsequent years in order to assess the development of sense of meaning during their duration of stay at university.

Irrespective of the above-mentioned limitations, it is envisaged that the outcomes of the research could have relevance to other universities around the country, because of the similarities in the circumstances of students in South Africa.

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