

THE DEVELOPMENT OF
THE STUDENT COUNSELING NEEDS SCALE (SCNS)

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PIUS N.NYUTU

Dr. Norman Gysbers, Dissertation Supervisor

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The undersigned, appointed by the Dean of Graduate School,
have examined the dissertation entitled

THE DEVELOPMENT OF
THE STUDENT COUNSELING NEEDS SCALE

presented by Pius N. Nyutu

a candidate for the degree of Doctor of Philosophy

and hereby certify that in their opinion it is worthy of
acceptance

Norman C. Gysbers, Ph.D.

Glenn E. Good, Ph.D.

Mary Heppner, Ph.D.

Richard T. Lapan, Ph.D.

Ibitola Pearce, Ph.D.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....ii

LIST OF TABLES.....ix

ABSTRACT.....x

Chapter

1. INTRODUCTION.....1

 Purpose of the Study

 Research Questions and Hypothesis

2. REVIEW OF LITERATURE.....10

 Introduction

 Guidance Programs in the Development of Young People

 Student Guidance and Counseling Needs

 Assessment of Guidance and Counseling Needs

 The Kenyan Secondary School Student

 Conclusion

3. METHOD.....47

 Participants

 Instrument Development

 Procedures

 Statistical Analysis

4. RESULTS.....62

Data Screening	
Confirmatory Factor Analysis	
Exploratory Factor Analysis	
Reliability Estimates	
Additional Analysis	
5. DISCUSSION.....	79
Discussion of Results from Hypothesis Testing	
Implications of the Findings	
Implications for the Development of Guidance and Counseling Programs	
Implications for Future Research	
Limitations of the Study	
Summary of Findings	
REFERENCES	104
APPENDIX	
A. Summary of Recommendations from Pilot Study Participants.....	120
B. Catell's Scree Plot.....	123
C. Distribution of normalized residuals.....	124
D. Rank order of the 10 largest residuals.....	125
E. Pilot Study Questionnaire.....	126
F. Main Study Questionnaire.....	133
G. School Principal's Informed Consent and Approval for the Study.....	139

H. Informed Consent.....	140
I. SCNS Oral Script.....	142
VITA.....	143

LIST OF TABLES

Table	Page
1. Numbers of Schools that Experienced Unrest by Province in the Year 2000/2001.....	113
2. Goodness-of-fit Indicators for the SCNS Hypothetical Model for the 96 Items.....	114
3. Item, Component Loading, Communalities Estimates, Means, and Standard Deviations for the Five-Factor Student Counseling Scale.....	115
4. Means, Standard Deviations, and Coefficient Alpha Reliability Estimates.....	117
5. Correlations between Human Relationships, Career Development, Social Values, Self Development, and Learning Skills Subscales.....	118
6. Two-Way ANOVA Summary Table for Gender and Form Differences.....	119

THE DEVELOPMENT OF
THE STUDENT COUNSELING NEEDS SCALE

Pius N. Nyutu

Dr. Norman C. Gysbers, Dissertation Supervisor

ABSTRACT

The purpose of this study was to develop an instrument that can be used in the identification of guidance and counseling needs of secondary school students in Kenya.

The Student Counseling Needs Scale (SCNS) is a 52-item inventory which assesses the guidance and counseling needs of secondary school students in Kenya. The initial items were pilot-tested with a group of 74 students that attended a co-educational high school in Kenya and then revised for the main study. Data from 867 participants (423 males and 444 females) recruited from seven provincial schools in Kenya was analyzed using confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). Five factors, human relationships, career development, self development, social values, and learning skills were assessed.

Alpha coefficients for five SCNS subscales ranged from .83 to .88, and .94 for the whole scale. Additional analysis revealed differences by gender and school in the way students rate their needs for guidance and counseling.

The findings highlighted the importance of using assessment instruments in identification of students counseling needs. The findings also supported the recommendation that Kenya should develop guidance and counseling programs in all schools to address students' needs. Additional research is needed to further clarify the reliability and validity of SCNS with students in district, national, and private schools.

CHAPTER 1

INTRODUCTION

In March 2001, 67 boys of Kyanguli Secondary School in Kenya died when other students set their dormitory on fire (ANB-BIA Supplement Issue, 2001). In this incident, some students, locked the dormitory door, doused the building in petrol and set it on fire while their colleagues were asleep inside. In the same year in July, seven arsonists reportedly overpowered two watchmen guarding the Lelmokwo Secondary School before petrol-bombing the 116 capacity dormitory, killing one student and seriously injuring 53 others. By the end of July that year, more than 30 secondary schools in Kenya had been closed following a series of riots, strikes and arson attacks.

This trend of school violence had continued from the preceding years. In March 2000, 26 girls had been killed in an arson attack in Bombolulu Girls Secondary School, while the year before two students had been killed in Nyeri High School (Daily Nation, August 7, 2000). Over the years, there have been increased reports of school violence in the media. For instance, the Africa News Bulletin (ANB-BIA Supplement Issue, 2001) reported that, between May 1999 and

July 2001, the frequency of arson incidents in Kenyan schools increased to alarming levels. In 2004, over 25 schools in Machakos District went on strike leading to the death of one student and destruction of property worth over Ksh. 30 million (\$ 430,000.00) (Mwanzia & Mudi, 2005). In the same month, two neighboring schools in Kisii District were closed within a week after students went on rampage (Daily Nation, 2004). Apart from incidents of school violence, reports about other types of school unrest have also increased. One event took place in July 2001 when 700 girls from Nairobi's Alliance High School – one of the top schools in the country – marched through the streets of the city to protest the deteriorating situation in the school (ANB-BIA Supplement Issue, 2001).

Increased substance abuse, break-up of cultural norms, stress from overloaded curriculum, lack of guidance from parents and teachers, and general lawlessness in the country, have been proposed as some of the reasons that have led to increased violence in schools (Buku & Mwanzia, 2004; Kariuki, 2004; Mwanzia & Mudi, 2005; Waihenya, 2000). Since Kenya became independent from the British colonial government in 1963, significant changes have been made in the economy, education, health, culture, society and politics. Despite this progress, Kenya is still

experiencing problems as it tries to balance between the diverse cultural traditions and the need for global modernization (Bureau of African Affairs, 2003). The rate of economic growth has especially slowed in the recent years (Abagi & Odipo, 2003), hence limiting the availability of resources. There have been cases of poor governance, increased ethnic tension and conflict, and increased gender related violence (Abagi, Olweya & Otieno, 2000). Changes in the family and society are also providing a major challenge to education as a social institution for change and development (Abagi, Olweya & Otieno, 2000). Since parents bear the bigger burden of educating their children (Abagi & Odipo, 2003), more parents are spending their time on economic activities and less time with their children. Kenyan schools are starting to deal daily with the consequences of violence, drugs, dysfunctional families, teenage pregnancy, truancy, juvenile delinquency, and underachievement (Atemi, 2000; Kariuki, 2004).

The Ministry of Education in Kenya has tried to respond by introducing the teaching of a subject called Social Education and Ethics in schools. Although the purpose of this subject is to enable students to acquire knowledge and skills in personal development and awareness, this purpose may not be achieved by all since the subject

remains optional in schools. The Ministry has also allowed the teaching of religious education in public schools to students who opt for the subject. The rationale for the teaching of religious education has been based on the argument that 95 percent of population of Kenya is religious (Maxon, 2004; The World Fact Book, 2004), and that the teaching of the subject impacts moral guidance. Empirical studies on the effectiveness of the teaching of these two subjects in Kenyan schools are lacking. There is need for effective programs that can help alleviate these problems (Abagi, et al., 2000; Koech Report, 2000; Njeru & Orodho, 2003).

Since Kenyan schools continue to experience problems related to student developmental needs, it is the view of this study that Kenya can benefit from examining and replicating guidance programs that have been found effective elsewhere. An examination of literature has revealed that, guidance and counseling programs are being used in schools in different parts of the world such as United States (Gysbers, 2004), Hong Kong (Circular Memorandum 108, 2002), and Botswana (Navin, 1989). In the United States, comprehensive school guidance and counseling programs have been established in over 35 States. The American School Counselor Association (1997) observed that,

guidance programs have been established to respond to the challenging needs of students today and the rising expectations of society. Since many children are entering school with emotional, physical, and interpersonal barriers to learning, the emphasis of guidance and counseling programs is on developmental skill building right from the time students enter school and continues as they progress through the grades (American School Counselor Association, 1997). Since Kenyan students are experiencing emotional, physical and personal problems (Njeru & Orodho, 2003), instituting school guidance and counseling programs similar to those present in the U.S. may help in alleviating these problems.

In developing school guidance and counseling programs, there is need to identify the specific areas that students will acquire competencies after participating in the programs. One way to do this would be to identify the needs of students, and then group them into content areas for implementation of the programs. The three content areas emphasized in the comprehensive school guidance and counseling programs are: academic, career, and personal development (Gysbers, 2004). Similar emphasis areas for student needs have also been used in some African countries

such as Botswana (Navin, 1989) and Nigeria (Ahia & Bradley, 1984).

At present, there are no officially established or government approved guidance and counseling programs in the Kenyan education system. Some schools have started guidance and counseling programs that are aimed at responding to student needs usually in times of crisis. In such programs, some of the teachers are requested by the school administration to take the role of guidance and counseling. Students who are encountering personal problems then go to the identified teachers to discuss their problems. Since there are no specific facilities and time set aside for these discussions, the availability of such teachers is minimal, hence not many students use the opportunity. In schools where facilities are available, the teachers are not properly trained to deal with the issues the students present. To avoid this procedure of just responding to students' needs in times of crisis, there is a need to have a proper system for identifying the problems that students have. Strong guidance and counseling programs will then be established to respond to students' needs in a structured way.

There is a need to identify the current needs of students in Kenya as a starting point. By identifying such

needs, then it will be possible to develop guidance and counseling programs that address them directly and also provide important information for further development of the program.

Student needs can be identified from different perspectives. In Botswana, general conferences were held to collect the views from the public. Then separate questionnaires were used to survey the primary school teachers, secondary school teachers, and secondary school students (Navin, 1989). Since schools in Kenya are managed through a partnership between the Ministry of Education, administrators, teachers, parents, students, and the community, it is important to assess student counseling needs from these different perspectives. Initial studies could begin with students since they are the direct recipients of guidance and counseling services. Instruments that have been developed to examine student guidance and counseling needs can then be modified to collect views from parents, teachers, and school administrators.

Purpose of the Study

The purpose of this study was to develop an instrument that can be used to assess the guidance and counseling needs of secondary school students in Kenya. Data collected was used to examine the reliability and validity of the

instrument in identifying the needs. Further analysis determined whether the identified guidance and counseling needs can be grouped into the three content areas of academic development, career development, and personal development. The information obtained from the findings will be used in the development of a school guidance and counseling program that can be established in the Kenyan education system. The validated instrument will be used as a beginning point in the development of guidance and counseling programs. Specifically, the instrument will assess students' counseling needs at various stages in their high school education. The findings of the study will also be used to offer recommendations to the Kenya Institute of Education and institutions of higher learning on the development of training programs for school guidance and counseling personnel.

Research Questions and Hypothesis

This study seeks to answer the following questions: Can a scale be reliably used to identify the counseling needs of high school students in Kenya? Can the counseling needs of high school students in Kenya be grouped into the three content areas of academic/educational, career/vocational, and personal/social needs? What factors

influence the way high school students in Kenya state their counseling needs?

The five hypothesis of the study are: (1) the identified counseling needs of secondary school students in Kenya fall into three content areas of academic, career and personal development, (2) the SCNS can be reliably applied in identifying the counseling needs of high school students in Kenya, (3) there are no significant differences between male and female high school students in Kenya in the identification of guidance and counseling needs, (4) there are no significant differences between high school students at different Form levels in Kenya on expression of their guidance and counseling needs, and (5) there are no significant differences between students in different schools in identification of guidance and counseling needs.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

This chapter examines the literature on the assessment of guidance and counseling needs among secondary school students. Since research on guidance and counseling needs has been conducted from different perspectives with regard to purpose, participants, design, methods, instruments, and projected outcomes, this chapter evaluates the implications of these studies. Other aspects such as the practicality of location setting, social and political systems, and even applicability of replica studies in Africa are also discussed.

The chapter is divided into three main sections. The first part focuses on defining and describing guidance and counseling programs in schools and their role in the development of young people. Comprehensive guidance and counseling programs that have been established in the United States and other parts of the world such as Hong Kong are examined. The section also focuses on the emphasis of these programs on three content areas (academic, career, and personal/social domains) in the identification of

student counseling needs. The second part focuses on the applicability of counseling and guidance programs in Kenya. Studies conducted in various African countries are analyzed to identify issues that may be specific to the African situation in the assessment of students' needs, and the implications of their findings on conducting similar studies on the Kenyan student population. The third part examines various methods applied in assessment of guidance and counseling needs among students. The different types of designs and instruments used by past studies in assessment of students' needs are identified and discussed. The chapter ends with a brief synthesis of the implications of the findings from the literature review, and discusses how these findings apply to the present study.

Guidance Programs in the Development of Young People

The World Education Forum held in Dakar Senegal (April, 2000) re-affirmed the Universal Declaration of Human Rights and the Convention on the Rights of the Child by stating:

That all children, young people and adults have the human right to benefit from an education that will meet their basic learning needs in the best and fullest sense of the term, an education that includes learning to know, to do, to live together and to be. It is an education geared to tapping each individual's talents and potential

and developing learners' personalities, so that they can improve their lives and transform their societies. (UNESCO, 2000, p.8).

Developmental needs of children may be similar globally, but children and adolescents in school develop at different rates and in a variety of domains (Paisley & Hubbard, 1994). Such domains include cognitive development, ethical reasoning, conceptual level, psychosocial development, interpersonal development, and career development (Paisley & Hubbard, 1994; Schmidt, 1999). Different methods are therefore applied by different countries in meeting the objectives of education. For instance, some countries have established guidance and counseling programs in schools to help students in the process of personal development. An examination of literature has revealed that guidance and counseling programs are being used in schools in countries such as the United States (Gysbers, 2004), Hong Kong (Circular Memorandum 108, 2002), and Botswana (Navin, 1989). Such programs have been structured to respond to the needs of students in the specific regions. There is also a continuous evaluation and modification of established programs to suit the needs of students in particular situations (Mickey, 1999).

In the U.S., comprehensive guidance and counseling programs have been established in at least 35 different states. The goal of the comprehensive guidance and counseling program is to provide all students with life success skills (American School Counselor Association, 1997). These programs are developmental in nature, and assist students to acquire and use life-long skills through the development of academic, career, self-awareness, and interpersonal communication skills. The American School Counselor Association in announcing the national standards for school counseling programs categorized the student developmental needs into three broad areas: academic development, career development, and personal development (American School Counselor Association, 1997). Comprehensive guidance and counseling programs emphasize these three areas as the content to be mastered by students (Gysbers, 2004; Gysbers & Henderson, 2006). The major elements of the program are content, organizational framework, resource development, management, and accountability (Gysbers & Henderson, 2006). There is a built-in evaluation process in this model that includes continuous assessment of student needs grouped into the three content areas of academic, career, and personal/social.

The Hong Kong model, which is based on the United State's comprehensive guidance and counseling program, groups the content into four key learning areas for student personal growth by including a social development aspect (Circular Memorandum 108, 2002). The inclusion of social development as a domain rather than include it together with personal development as in the U. S. model, is an example of how guidance and counseling programs can be structured to meet situational needs.

Formulating programs that are applicable to diverse issues is especially important since research has indicated that issues of diversity can influence the stated needs of young people in different situations (Moon, 2002; Tahhan & Eitah, 2002). Guidance and counseling programs have already been found to be successful with diverse groups (Nishimura, 1997) and therefore serve as good models for the development of similar programs elsewhere.

Content Areas

In developing a comprehensive guidance and counseling program, there is need to identify the specific areas in which students will acquire competencies after participating in the program. Assessment of students' needs can then be structured around these areas. In this section, the three content areas identified by the

comprehensive guidance and counseling program used in the United States are described.

Academic development

The ASCA National Model (2003) highlighted the competencies that students should acquire within the academic content area. These include acquiring attitudes, knowledge, and skills that contribute to effective learning in school and across the life span. As students complete school, they will be prepared to choose from a wide range of postsecondary options including college. Students are also enabled to understand the relationship between what they have learned in school and the world of work (Gysbers & Henderson, 2006). To gain these competencies, student activities then may consist of: (a) application of effective study skills that help students to develop positive attitudes toward school and life-long learning, (b) setting educational and life goals, (c) learning effectively, and (d) gaining test-taking skills (ICES/ISCA Task Force, 1996, p. 28).

In the academic content area, students therefore gain skills for academic success. Activities and experiences that develop student competencies that lead to educational success are arranged and provided (Schmidt, 1999). Paisley and Hayes (2003) emphasized that it is especially important

for school personnel to establish responsive policies and initiate strategies that assist students in meeting higher academic standards. Such strategies should also prevent students from leaving school prior to graduation. However caution should be taken when establishing such strategies since some tracking and placement practices may further discriminate and disenfranchise at-risk students rather than help them to overcome their academic difficulties (Fusick, 2004). Understanding the needs of students at various developmental and academic stages may therefore enable school personnel to provide the most appropriate services.

Career development

In the career development content area, students learn about career and life planning by participating in activities that target acquiring competencies necessary in exploring career possibilities and opportunities (Sharf, 1997). The activities in career development consist of: (a) planning a career identity, (b) planning for the future by establishing goals and developing a plan of action, (c) combating career stereotyping by understanding the continuing changes of male/female roles, and (d) analyzing the skills and interests that go with particular jobs in preparation for an effective school-to-work transition (ICES/ISCA Task Force, 1996, p. 27). Super and Nevill

(1984) perceived the relative significance attributed to the five roles of work, community, family, leisure, and study as having important implications for career counseling. Through career development, students acquire skills to investigate the world of work in relation to knowledge of self and make informed career decisions. They also employ strategies to achieve future career success and satisfaction. Career development also enables students to understand the relationship between personal qualities, education and training, and the world of work (ASCA National Model, 2003; Gysbers & Henderson, 2006).

Career development involves nurturing the students' dreams and defining the pathways for fulfilling those dreams (Paisley & Hayes, 2003). The career development process should therefore be at all levels of education and also outside the formal system. In emphasizing the role of education in career development of individuals, some authors have noted that, it consists of a lifelong process of developing work values, acquiring skills and learning about opportunities (Feller, 2003; Obadofin, 2001). To aid students in this process, the ASCA model proposed using strategies such as goal setting, the creation of academic counseling groups, and the development of career centers (Fusick, 2004). The career building and management emphasis

is therefore about helping students become healthy, self-reliant citizens who are able to cope with constant change at work as well as maintain balance between life and work roles (Feller, 2003). This process enables students to be in charge of their own careers, understand how to maintain stability, and adapt to change by having enough flexibility. Career management helps them develop the skills needed to make appropriate choices, at all times, in all aspects of their lives (Feller, 2003).

Personal/social development

The personal/social development content area involves students learning about themselves and others (Schmidt, 1999). The activities include: (a) learning to understand, accept and respect self (Poppen & Thomson, 1974), (b) developing positive attitudes through identifying, prioritizing, and evaluating values, (c) understanding and making appropriate decisions regarding drug/alcohol, tobacco, and use of other harmful substances, (d) developing a respect for cultural diversity, (e) learning how to behave responsibly in family, school, and the community in general, (f) development of relationship skills, (g) acquiring skills to resolve conflicts in a safe and responsible manner, and (h) developing effective ways to cope with violence in order to ensure personal safety

(ICES/ISCA Task Force, 1996, p. 27). Through personal/social development, students acquire the attitudes, knowledge, and interpersonal skills to help them understand and respect self and others. They also make decisions, set goals, and take the necessary action to achieve the goals. Personal/social development also enables them to understand safety and survival skills (Gysbers & Henderson, 2006).

Schools need to be prepared to provide interventions that assist students presenting with social and emotional needs that may interfere with their academic success. For instance, addressing the root causes of fear, anxiety, and danger among student populations rather than simply adding conventional security measures at schools, may help to genuinely change the school environment and student potential for the better (Fusick, 2004). Some authors have suggested some specific strategies to identify and understand the problems that students present with. Eschenauer, Chen-Hayes, and Stuart (2005) recommended using functional behavioral assessments to assist students in defining their problems, while Abrams, Theberge, and Karan (2005) recommended using the ecological model. The ecological model provides a systematic and comprehensive approach to understanding the "bigger picture," namely

identifying those personal/environmental factors contributing to a student's problems. It also enables school personnel to simultaneously recognize and carefully modify the delicate balance between the student and the systems of people, places, and things that interact both directly and indirectly with that student.

Understanding the career needs, as well as educational and personal needs of students helps in designing proper techniques to respond to the need (Mickey, 1999). The process of identifying student needs is therefore structured around these content areas. While some techniques may help to deal with the needs on a global nature, other techniques may particularly be applicable to the three content areas of guidance and counseling: academic, career and personal development.

Student Guidance and Counseling Needs

This section analyses the processes that have been used in identifying and responding to students' guidance and counseling needs in African countries. Since there are no officially established guidance and counseling programs in the Kenyan school system currently, it is important to study and understand what works elsewhere in Africa. This section therefore examines the process used in establishing guidance and counseling programs in countries where they

are present such as Botswana, Nigeria, and South Africa. The procedures these countries used to establish these programs by first identifying students' needs, and then developing programs, are examined. The implications of developing similar programs in Kenya are then discussed. Particular attention is given to issues that may arise in replicating these procedures in assessment of students' needs in Kenya.

The African Situation

Some aspects common to communities in Africa, such as cultural traditions, dictate the procedure for guiding and teaching young people. For instance, it is the role of the community, especially the elders, to impart moral guidance to the youth (Mbiti, 1975). Schools therefore do not feel obligated to take up this role. The traditional process of guidance and counseling in Africa also seems to differ from the processes applied in other parts of the world. The African situation is best described by Mpofu (1994):

The African scenario presents the typical third world context of counseling where a minuscule of formally qualified counselors provide service alongside (if not in competition with) traditional counselor networks with firm roots in extended family cultures, clans and beliefs in omnipotent supernatural forces at the behest of medicine man or diviners which control the lives of people. (p. 312).

Attempts at establishing accredited counseling practice in Africa therefore tend to remain out of connection with mainstream counseling research. Even as African countries strive to develop economically and modernize their institutions under the stimulus of western influences, values and religions, commitment to cultural traditions seems to have remained strong among many communities (Buhrmann, 1985). Due to disruption of traditional cultural life and the introduction of western systems and values during the colonial era, people in Africa are faced with a conflicting situation in terms of values. Various researchers have attempted to study this situation by trying to understand the personal and social problems emanating from the conflict of values (Bourdillon, 1987; Mbiti, 1975). Mbiti (1975) especially noted that, while it is important for Kenyans to maintain the cultural traditions that govern their social lives, they cannot at the same time avoid moving on with the rest of the world in terms of technology and economic development.

In the process of establishing counseling services in Kenya, there is a need to first understand the underlying factors that influence peoples' beliefs and perceptions about such practices. It is especially important to understand the economical, socio-political, religious

beliefs, customs and traditions, and cultural changes that are present in different regions of the country. Young people should be understood within this context, but also in the paradoxical situation that they find themselves faced with the traditional and the modern world.

A review of literature has revealed that the various factors mentioned above have been considered in the process of developing guidance and counseling programs in some parts of Africa. In Nigeria, economic activities and developments have caused social and cultural changes and challenges as people strive for economic survival, sufficiency, stability, and supremacy (Ahia & Bradley, 1984). The impact of such changes has forced students to study under higher anxiety levels than in earlier years. The government in Nigeria has responded by calling for establishment of counseling and guidance in all schools. While the establishment of guidance and counseling programs seems important, governments in Africa should also provide necessary contextual changes to the improve people's lives so that guidance and counseling programs can be effective.

In South Africa, the political history had for a long time dictated the career patterns of the citizens before the break up of apartheid (Mathabe & Temane, 1993). The effects of that system continue to have an influence on the

job structure that is present in the country even today although many changes have occurred. The improvements made have resulted from the work of various commissions on career education. The findings and recommendations of these commissions are in consonance with contemporary career development theories which conceptualize career development as, "an acquisition of conglomerate of skills, functional in various life roles" (Mathabe & Temane, 1993, p. 28). This study identified a number of problems which hinder the implementation of career counseling programs in South Africa. Some of the problems are lack of training for teachers, lack of career identity in the school system, and the understanding of the career concept as something in the future hence lacking a linkage to learning in schools.

An assessment and analysis of the guidance needs and expectations of students in high schools of Bophuthatswana in South Africa (Mathabe & Temane, 1993) clearly demonstrated that there was an urgent need for guidance in work, educational, personal and social issues. Specific needs identified in these areas were: (a) human relationships in the adult-adult, adult-child, parent-child, and teacher-child contexts, (b) assessment of modern and traditional values, (c) career guidance, (d) moral

education, (e) community identity, (f) parent involvement, and (g) curriculum assessment and adjustment.

Nigeria and South Africa share similarities with Kenya, in that the systems of education are based on the British education system established before independence. The needs of the students in the three countries are therefore likely to be similar. Kenya can therefore benefit from replicating the processes of identifying students' needs within the guidance programs instituted in Nigeria and South Africa.

The country of Botswana shares the closest resemblance to Kenya in terms of the development of education. Botswana became independent from British protectorate in 1966 around the same time that Kenya gained its self-rule from the British colonial government (1964). Though the education systems in the two countries were established by the British colonial government, Botswana has made significant progress in the area of guidance and counseling in schools since there is an established program.

The initial efforts in guidance and counseling in Botswana occurred around 1963 when a workshop on career guidance was held in Gaborone for selected secondary school teachers (Navin, 1989). Following this meeting, Career Masters were identified in each secondary school in the

country, and continued to be responsible for providing secondary school students with career and higher education information. Later workshops were focused on assessing the status of guidance and counseling in the country, determining the needs, and developing recommendations (Navin, 1989). A follow-up study was also conducted to identify guidance and counseling needs (Navin, 1989). The findings revealed varying needs as perceived by teachers and students. Secondary school students in particular identified identical problems, namely: failure to understand subject matter, personal problems, finances, career choice, and choosing school subjects (Navin, 1989). The similarity of the education systems between Kenya and Botswana gives support to the idea that secondary school students in Kenya would also indicate similar problems.

It is evident that assessment of student needs in Africa has focused on identifying needs centered on educational counseling needs, career/vocational counseling needs, and personal counseling needs (Ahia & Bradley, 1984; Ocansey, 2000). Furthermore, the counseling problem typologies of personal, educational and employment concerns have also been used by the Zimbabwe Schools Psychological Services to advise schools and communities on a variety of counseling needs (Mpofu, 1994). These typologies therefore

can be meaningful and relevant in the investigation of student counseling needs. Other studies have indicated that student needs centered on the three content areas are not specific to secondary school students, but also to college students as well (Jennings, 1995; Nicholas, 2002). African students therefore seem to have similar needs even at different levels of education. Assessing students' counseling needs at lower levels of education, such as secondary school, will help in setting appropriate programs that respond to their needs and prepare them for other higher levels of education.

The Kenyan situation

Like many other African countries that attained independence within the last 50 years, Kenya is still striving to develop economically (Bureau of African Affairs, 2003). Some of the issues that Kenya face in common with these countries are poverty, illiteracy, unemployment, political instability, high mortality caused by diseases such as malaria and HIV/AIDS, and the need for global modernization (Abagi & Odipo, 2003; Bureau of African Affairs, 2003). These socio-economical situations have a major impact on the progress of education especially among the youth. Since schools lack adequate facilities important for effective learning and development of the

youth, they mostly direct the minimal resources to teaching in classrooms. Other important aspects in youth development such as guidance and counseling are therefore set aside or looked upon as an added burden since they may require resources that are not available.

To achieve high economical development that is important for improvement of daily living, the current government in Kenya is focusing on uplifting literacy levels. The government has therefore not only declared education compulsory for the first eight grades of primary school but also funds all public primary schools. This is especially important since research indicates that informal sector workers in Kenya with primary education are one-third more productive than workers who have not attained this level of education (Kenyaweb, 2004). Although 91 percent of school-age children attend primary school, factors such as cost, performance in examinations, and inadequate facilities prevent large numbers of students from continuing with secondary and college education (Maxon, 2004). Examinations taken at the end of the 8th and 12th grades determine whether students will be admitted into the few high schools and universities. More emphasis is therefore being put on performance in national examinations and less emphasis on other factors that are also important

for holistic development (Abagi, 1997; Abagi, Olwega & Otieno, 2000; Waihenya, 2000).

Education in Kenya still faces many problems and challenges according to The Report on the Commission of Inquiry into the Education System of Kenya (Koech Report, 2000). Some of the challenges identified in this report are access to education, quality, relevance, dropout, and retention. There is therefore an urgent need for Kenya to develop a system that responds to these needs from a holistic approach rather than focusing only on academic achievement. Such a holistic approach may involve creating a balance between academic development and other aspects such as career, vocational, personal and social development in the education system.

In Kenya, there have been increased reports in the local newspapers about violence in secondary schools (ANB-BIA Supplement Issue, 2001; Daily Nation, August 7, 2000). These reports have narrated graphic accounts of bullying, occult practices, drug abuse, and even multiple homicides in schools (Kariuki, 2004; Oriang, 2000; Siringi, 2003). The problem of violence in schools is not specific to one region in the country. According to data released by the Ministry of Education (Table 1), unrest in schools in the years 2000 and 2001 was wide spread in all provinces.

It has been suggested that the unrest in schools indicate a need that is not being catered for currently in the school system (Abagi, et al., 2000; Koech Report, 2000; Njeru & Orodho, 2003). Some schools are now starting to recognize the need for establishing programs that address student developmental needs. Some of these schools, especially those founded by Christian missionaries, have started pastoral programs focused on religious awareness and moral education (Kenya Catholic Secretariat: Personal communication, December, 2003). These scattered efforts are not enough to alleviate the problems however. Furthermore, there is a need to identify the problems first and then develop programs to respond to the needs. As has happened in Botswana (Navin, 1989), the move to establish guidance and counseling programs starts with studying the current situation and investigating the needs of students. Once the programs have been established, there is need for continuous assessment of students' counseling needs as they progress through school.

Assessment of Guidance and Counseling Needs

This section highlights the various methods used in assessing students' counseling needs in past studies. Issues that relate to assessment of counseling needs are examined. The section focuses on the methods applied in the

identification of students' needs and grouping them by content areas. The implications of developing and applying the different types of assessments are discussed. A critical evaluation of these assessments is conducted to identify factors that go towards preparing an instrument that is relevant in assessing counseling needs of secondary school students in Kenya. The section starts with an examination of counseling needs assessments in educational institutions in general, and then narrows down to the assessment of secondary school students' counseling needs.

Surveying students' needs has multiple benefits (Nicholas, 2002). Among these benefits are: (a) their usefulness in developing large and small group programs focused on the expressed student needs especially for students who are reluctant to seek individual counseling, (b) it is an efficient method of identifying student concerns, and (c) to aid in the training and preparation of counselors. Various studies have been conducted to assess counseling needs across the world. These studies have focused on different aspects of the student population including different levels of education, age groups (Blake, 1982; Wagner, 1999), gifted children and their families (Chan, 2003; Moo et al., 1997), children with disabilities (Omizo & Omizo, 1993; Smadi & Sartawi, 1997), teachers

(Morrow, 1995; Mpofu, 1994)), cultural groups (Eleftheriadou, 1999; Dolan, 1996; Mitchell, 1991; Tahhan & Eitah, 2002), and gender groups (Bishop et al., 1998; Saroja, 1990).

Some of the studies have examined counseling needs in institutions of learning for the purpose of identifying factors that would be applied in the formulation of programs. For instance, Tahhan and Eitah (2002) examined the needs of students in Hashemite University in Jordan in order to establish the need for a counseling center. Saroja (1991) studied the counseling needs of female postgraduate students of the University of Agricultural Sciences in India. The findings of this study revealed that female postgraduate students needed counseling to address academic underachievement and adjustment to personal relations with male students. This study therefore identified the need for professional female counselors in the University.

Studying different multicultural groups also helps to draw findings that identify their particular needs (Eleftheriadou, 1999). This is because there are shared group values and as a result different groups have different needs but quite often they are responded to in rather stereotypical ways which do not take into account their individual preferences and cultural influences

(Eleftheriadou, 1999). Eleftheriadou therefore recommended considering the impact of sociocultural context, socialization patterns, religion and other social influences on clients psychological development, without stereotyping, and/or ignoring racial and cultural roots.

An example of how these various factors can be brought together is found in the study conducted to assess guidance and counseling needs in Botswana (Navin, 1989). Initially, general conferences were held to collect peoples' views without following a formal interview schedule. A second approach was applied to survey primary school teachers, secondary school teachers, and secondary school students in three major settings in the country, rural, urban, and village. In addition, at the secondary school level, three types of schools were included in the study: Government Secondary Schools, Grant Aided Schools, and Community Junior Secondary Schools. The method of assessment used in Botswana may be effectively replicated in Kenya due to the nature of its diversity in type of schools and their geographical settings. The preliminary nature of the present study however calls for focusing on students first, and then expanding the assessment to other groups such as teachers, parents, and the public.

Teachers can also be an effective source for identification of counseling needs in schools (Navin, Yaakub & Mohamed, 1996). Tatar (1998) investigated teachers' perceptions and actions regarding the psychological and counseling needs of their pupils. The sample consisted of 258 primary school and secondary school teachers. The findings revealed significant differences between teachers in the two educational settings in most of the issues investigated. Secondary schools teachers indicated a greater need for individual counseling in schools than primary school teachers. While secondary school teachers stated that they are approached by students mainly with issues associated with school life, primary school teachers' pupils requested more help on personal and family issues. This difference in counseling needs depending on educational level may help in planning for the assessment of the counseling needs of students in Kenya since there is a similar system of primary schools and secondary schools.

There are various studies that have particularly examined the counseling needs of secondary school students (Brouzos, 1991; Hipple, 1991; Keller, 1991; Olszewski-Kubilius & Scott, 1992). Some of the studies have focused on identifying similarities and differences of counseling

needs depending on gender. For example, Bishop, Bauer, and Becker (1998) conducted a survey of student counseling needs at a medium-sized suburban institution in the U.S. The findings indicated that both male and female students need assistance with personal, career and academic problems. A higher percentage indicated a need for assistance with career and academic concerns than with personal issues. Women particularly indicated they worry more about health and safety. This shows that although males and females may share similar counseling needs, there are some areas where the needs may be specific to one group as opposed to the other. The findings of this study are particularly relevant to the Kenyan situation since most of the secondary schools are single-sex schools. Identifying counseling needs depending on type of school in terms of gender will therefore aid in developing responsive services that cater to specific groups.

The employment of different designs has also resulted in identification of a multitude of counseling needs among students. Some studies have applied a combination of qualitative and survey designs (Guneri et al., 2003) while others combined survey questionnaires and interviews (Bishop, Bauer & Becker, 1998; Dolan, 1996). Still, others have used a comparison of quantitative and qualitative

methodologies to assess counseling needs (Olszewski & Scott, 1992; Wagner, 1999). A study focused on female students at an Indian university (Saroja, 1991) used a combination of general observations and case studies. The general observations yielded data on academic problems while specific case studies were more useful in assessing data on personal issues such as harassment. The disadvantage of this type of a study is that it may be time consuming and only effective with a small group of participants. Other methods such as the use of phone calls may shorten the duration of the study. Rasmussen Cruz et al (2001) used data obtained from phone calls by adolescents to a phone counseling service offered by the Mexican Social Security Institute in Guadalajara. Phone calls were a preferred method in identifying adolescents' needs since they ensure confidentiality and anonymity. Even with such advantages, the use of phone calls and other forms of technology such as the internet is not very suitable for data collection in Kenya since they are not available in many areas.

The use of different methods while studying different groups, even within the same region, has indicated that different types of assessment methods can be effective with different groups of the student population. The findings of

the studies above support the rationale for using relevant instruments given the diverse nature of the Kenyan population (Maxon, 2004). Various variables should be considered as the needs are identified. The relationship of these variables and cross relations of groups of variables indicates that various factors influence the needs of students in different parts of the world. While some needs are specific to type of the learning institution, others are dependent on grade or class levels within the same school.

Development of Instruments

One question that a researcher needs to answer before conducting a study is whether the method of assessment used will help to arrive at the information required. By answering this question, the researcher will be able to determine if one method of assessment will be enough or there may be a need to combine different designs.

There are various instruments that have been developed to assess counseling needs from different perspectives. For instance, Olszewski-Kibilius and Scott (1992) employed the Career Decision Scale (Osipow, 1987) and the Career Readiness Scale, to assess current career maturity attitudes and skills related to making career choices. Wagner (1999) used the Expectations About Counseling - Form

B (EAC-B) in the quantitative part of a two-part study since it was easier to perform a multivariate analysis of variance (MANOVA) on the data obtained by this instrument. Bishop, Bauer, and Becker (1998) used the Survey of Student Needs (SSN) which had been developed at the University of Pittsburgh. A revised version of this instrument, a 42-item Survey of Student Needs (Gallagher et al, 1992), was used to identify the counseling needs and preferred counseling sources of South African first-year students (Nicholas, 2002).

Some studies have developed instruments to ensure they will be relevant in assessing counseling needs for specific populations. A comparison study between Malaysia and Lesotho (Navin et al., 1996) used the Primary School Teacher Guidance and Counseling Needs Assessment Questionnaire. This instrument had been field tested with several groups of persons, and then minor changes were made before the questionnaire was distributed. In Botswana (Navin, 1989), two instruments, one for teachers and another for students, that were developed by members of the Guidance and Counseling Reference Group, were utilized in the survey. The instrument for students, The Secondary School Student Questionnaire, was organized into three major sections: personal concerns, identification of

assistance providers, and identification of needs that the educational system does not meet.

In another study conducted in Africa, a needs assessment instrument was developed by generating items from a review of literature, American high school student needs assessment tools, and items from other instruments used with specific student population in Nigeria (Ahia & Bradley, 1984). Another study conducted in Nigeria used the Nigerian Counseling Survey Instrument to investigate the counseling needs in universities (Abumere, 1986). The authors specifically designed the instrument for the purpose of accessing data on the variables of sex, age, religion, ethnic identity, grade level, marital status, and school. This particular instrument seems to be applicable for assessing student counseling needs in Kenya. However the unavailability of this instrument currently renders it impossible to use in this present study.

While various types of instruments are applicable in identifying students' counseling needs, it is evident that studies conducted in Africa have also involved developing instruments that are relevant to particular populations and situations. Where instruments developed elsewhere have been applied, a revision of the instrument preceded the study (Nicholas, 2002). Due to the diverse nature of the

variables that go towards to assessment of students' counseling needs in Kenya, it is important to develop instruments that will be relevant there as has been done in other African countries. Such instruments should reliably include assessment of variables such as age, sex, religion, ethnic identity, grade level, type and location of school.

The Kenyan Secondary School Student

The use of appropriate assessment procedures is important in Africa as witnessed by past research. This is because of the diversity of cultural, social, political, and religious systems present in Africa. Kenya is a good example of these unique situations. Almost every student in Kenya can be considered a 'multicultural student' in the light of the diverse background. The majority of the students come from the 43 different cultural/ethnic groupings in Kenya, all speaking different languages or dialects (Maxon, 2004). Apart from their native language, students have to learn to speak Swahili, an African language spoken in the Eastern Africa region, and also English which is the mode of communication in schools. The students therefore can be considered multi-lingual in terms of language alone. Belonging to different cultural traditions, religious beliefs, and social-economic status also adds to their diversity.

Wright (2000) supported the need for counselors to seek competence on working effectively with multicultural student-clients. This study suggested having a working definition of multicultural students and characteristics of their cultural groups. By understanding the cultural complexities present in Kenya with its more than 40 cultural groupings, it will be easier to develop an instrument that integrates diverse situations to come up with concrete findings. Issues such as age, gender, and social-economic status ought to be considered while conducting studies in Kenya.

With regard to age, Wagner (1999) found out that traditionally-aged students had more positive expectations about counseling than adult students. The traditionally-aged students particularly expected counselors to be more accepting, directive, self-disclosing, expert, and tolerant. The majority of students in Kenya are in the category of traditionally-aged (Kenyaweb, 2004) hence it would be worthwhile to examine their expectations about counseling. Studying gender differences within the student population can also help in the formulation of programs that are sensitive to the needs of both men and women. Wagner (1999) revealed that women students held more positive expectations about counseling than men students

and expected counseling to be more concrete and immediate than men. A good sample in Kenya would therefore not only consist of male and female samples, but also include diverse variables.

In terms of social-economic status, Kenyans belong to different social economic groups. The diverse nature of the student population in Kenya, however, does not mean that their needs are far removed from the needs of students elsewhere. Mpofu (1994) for instance noted that what may be perceived as a problem by middle class in the western world may not be separate from educational and/or employment concerns in African schools as far as help seeking is concerned. Kenya can therefore benefit from the implications of studies conducted on students elsewhere in the world.

Ahia and Bradley (1984), while examining the needs of secondary school students, had to develop their own instrument since the instruments available from foreign countries did not seem culturally appropriate, while instruments previously used in Nigeria were inadequate. The instrument finally used was not only effective in identifying counseling needs in the three domain areas, educational, vocational, and personal, but also revealed that the students had more vocational than educational

problems. The present study will pay attention to the processes used by Ahia and Bradley in the construction of items.

Most notable are the methods used in Botswana. The analysis of data from interviews, conference documents, and surveys resulted in similar guidance and counseling needs as indicated by individuals, community, and schools (Navin, 1989). Secondary school students in particular indicated the need for assistance with personal and interpersonal problems, in choosing and understanding school subjects, with career awareness and exploration, in learning better study skills, in learning good human relations skills, and in feeling more confident. The study came up with practical recommendations for counselor roles according to the needs identified, and a sequence of developmental tasks for beginning initial efforts in guidance and counseling program development. It may be more effective replicating this study in Kenya. However, given that Kenya does not yet have established guidance and counseling programs, it is the view of this study that starting with a specific group such as students will yield more reliable data. The procedure can then be replicated with other groups. The procedures used in surveying the students in Botswana will therefore be replicated in this study.

If studies conducted in other countries have been successful in identifying student counseling needs, then there is enough reason to believe that similar studies in Kenya will also yield significant findings. Some important variables among the Kenyan student population are age, grade level, cultural/ethnic groupings, racial groups, socio-economic groups, types of schools, and persons who play a major role in the education of children such as teachers, parents, and administrators. Using appropriate techniques that put into consideration all these variables will result in reliable findings.

Conclusion

A critical examination of the available literature on assessment of guidance and counseling needs especially among the student population has revealed important information on the mode of assessments and the implications for Kenya. Although studies conducted in other parts of the world may seem to be unrelated to the African situation, it is evident that the youth in Africa share similar counseling needs with youth elsewhere in the world. The literature has particularly shown that these needs can be grouped into three categories of educational/academic, career/vocational, and personal/social concerns.

Different methods of assessment of needs are applicable in different situations. However, the literature has also revealed that a combination of different modalities may be more effective in accessing data on individual, school, and community levels. Care should be taken to ensure that the instruments developed are valid and reliable. This can be achieved by pre-testing and re-testing such instruments before generalizing them to a wider population.

There are also many variables that ought to be considered in assessing the counseling needs of students in Kenya. The multitude of cultural groups (also known as tribes in Kenya) and the influences of the social-political history have also been found to have significant implications on programs being developed within the school system. This study therefore operates from the premise that, to study the needs of students, it is important not only to consider the implications on individuals, but also the societal needs. To conduct an effective study in Kenya it is better to narrow down to a particular group which is also diverse enough for the findings to be generalized nationally.

This study was therefore designed to develop an instrument that can be validly and reliably used in

identifying guidance and counseling needs of secondary school students in Kenya. Secondary school students were chosen because they represent a group that is in the process of preparing to enter the world of work within a few years and would benefit from guidance and counseling services established in schools. A sample from this population is also representative of the majority of the young people in Kenya. The findings of the study will be used in the process of establishing guidance and counseling programs in Kenyan schools, and in the continuous assessment of individual students' needs.

CHAPTER 3

METHOD

This Methods chapter is divided into four sections. The first section describes the sampling technique and the salient characteristics of the participants. The second section describes how the instrument was constructed and the criteria for developing the items. The third section describes the procedures used to pre-test the instrument and collect data. Finally, the rationale for conducting both confirmatory and exploratory factor analysis and further analysis using univariate and multivariate analysis of variance is discussed.

Participants

The total sample for this study consisted of 941 secondary school students attending 8 provincial secondary schools in Kenya. The provincial schools were chosen because they admit students from all regions of the Province hence they have students representing diverse cultural backgrounds, social economic status, religious beliefs, and geographical locations. The provinces are representative of Kenya since they are the country's major geographic regions.

Seventy-four participants (64 males; 9 females; one undefined) were drawn from one co-educational school in Nairobi Province for the pilot study. The participants ranged in age from 15 to 25 (mean age = 17.46; SD = 1.27) with the majority of the students between 17 and 18 years old. Forty students (54.4%) were in Form Three, 31 (41.9%) in Form Four, one student in Form One, while two did not indicate Form level. The pilot study participants were from 17 racial/ethnic groups and affiliated with six different religious groups.

There were 867 participants in the main study recruited from seven provincial schools in Kenya. The schools were situated in four provinces: Nairobi, Central, Eastern, and Western. Gender representation was evenly distributed: 423 (48.8%) males, and 444 (51.2%) females. All the participants were high school students representing the four grade levels as follows: 303 (34.9%) in Form One; 256 (29.5%) in Form Two; 152 (17.5%) in Form Three; and 149 (17.2%) in Form Four. Seven participants (0.8%) did not indicate their form level. The mean age of the participants was 16 (SD = 1.33) with age ranging from 16 to 20 years old. The participants came from 49 cultural/ethnic groups including: 416 (48%) Kikuyu; 105 (12.1%) Luhya; 54 (6.2%) Luo; 51 (5.9%) Kamba; 39 (4.5%) Meru; 32 (3.7%) Embu; 24

(2.8%) Kisii; 23 (3.1%) Bukusu; 15 (1.7%); and 9 (1%) Somali. Ninety nine participants (11.4%) were from forty other ethnic groups each accounting for less than 1% of the total participants. The participants identified with the following religious groups: 831 (95.8) indicated they are Christian; 31 (3.6%) Islam; and 5 (0.6%) did not identify with any religion. 553 (63.8%) participants indicated that they live in the rural areas; 291 (33.6%) urban areas; and 23 (2.7%) did not indicate their home location

The number of participants sufficient for this study was determined by examining the sample sizes of similar past studies. Among the studies examined, representation of the nationwide student population (Brouzos, 1991), diversity in demographics (Abumere, 1986; Ocansey, 2000), and the type of factor analysis (Smadi, 1998), were considered in determining the size of the sample. Hatcher (2003) advocated the minimal sample size to be the larger of 100 participants, or 5 times the number of variables being analyzed. Tinsley and Tinsley (1987) recommended obtaining a sample of 5 to 10 participants per item up to a total of about 300 respondents while Tabachnick and Fidell (2001) recommended having at least 300 cases for factor analysis. The sample in this study was considered adequate since it met the above criteria. Also having a larger

sample is encouraged since some participants may leave some items blank hence they will not be included in the analysis (Hatcher, 2003).

Since the sample of participants was drawn from public provincial single sex boarding schools, this limits the generalization of the findings to similar schools. The generalization of the findings to other type of schools such as mixed-sex schools, private schools, and day schools may have different implications. The provincial schools are however selected for this study since they are more representative of the general secondary school population in Kenya.

Instrument Development

The initial Student Counseling Needs Scale (SCNS) was developed with items generated from the review of literature and other instruments that have been used in assessment of secondary school students' needs in African countries and in the United States. The items were slightly modified where necessary in order to be applicable with secondary school students in Kenya in terms of readability, clarity, and meaning. Past research has already underscored the importance of developing instruments that are relevant to the African situation rather than using instruments already developed elsewhere (Abumere, 1986: Navin, 1989).

The SCNS consisted of a demographic section and a 52-item questionnaire. To allow for modification of items during the revision after pre-testing, the initial instrument consisted of 100 items. DeVellis (1991) recommended the use of more items as a form of insurance against poor internal consistency since the nature of the correlations among items is not known at this stage of scale development. The demographic section consisted of questions about the participants' age, sex, tribe (cultural/ethnic group), residence (urban and rural), Form level, religion, and parents/guardians' education and occupation.

Ninety-six items were designed to assess the three constructs selected for the study: 30 for the academic construct, 20 for career construct, and 46 for the personal construct. Four items were included to check for random responding. All the items were worded positively to ensure clarity. Although it has been argued that wording the items both positively and negatively aids in avoiding response bias (DeVellis, 1991), the exploratory nature of this study called for avoidance of any aspects that may interfere with the students' ability to understand the items. Furthermore, many of the student counseling needs assessment instruments examined previously worded the items positively.

The three constructs were selected after an examination of literature revealed that they are the most identified constructs in assessment of school guidance and counseling needs (Jennings, 1995; Mathabe & Temane, 1993; Navin, 1989; Nicholas, 2002; Ocansey, 2000; Tahhan & Eitah, 2002). The comprehensive guidance and counseling program that is widely used in schools in the United States also includes an evaluation process structured around academic, career, and personal/social needs (Gysbers & Henderson, 2006; The Missouri Comprehensive Guidance Model, 2002).

Sample items in the academic/educational content area were: "To know how to study and get the most out of study time"; "To know how to seek help in selecting courses that will help meet my career goals"; "To know how to take good notes"; "To know how to do my best on tests and examinations"; "To know how to study and get the most out of my study time"; and "To know how to start and finish my assignments well".

Sample items in the career content area were: "To know how to prepare for careers in which I am interested"; "To know how to make plans for what I will do after completing high school"; "To understand my interests and abilities, and how to use them in making a career choice"; "To understand how being a male or a female affects my career

choice"; "To know how I can get information about careers in which I am interested"; and "To know about different jobs in my home area".

Sample items in the personal/social content area were: "To know how to express thoughts and feeling that are important to me"; "To know how to handle personal difficulties"; "To know how respect people from other tribes even when their views differ from mine"; "To understand how drugs and alcohol affect a person's behavior"; "To know the effects of pre-marital sex and teenage pregnancy"; and "To know how to get along with members of my family". (For a list of all the items, see Appendix E).

The subject centered scaling method was used in this study to identify the stated needs directly from the students. The items consisted of a 6-point Likert scale indicating different levels of agreement: 1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = slightly agree, 5 = moderately agree, and 6 = strongly agree. The 6-point scaling was chosen since it maintains the internal consistency and increases the variability in response (Heppner, 1991). Heppner also argued that a six-point format avoids the frequent selection of the middle scale point reflecting neutrality that is present in a

five-point Likert scale. Since this scale is aimed at identifying counseling needs, then a neutral response would not have accessed reliable data.

An evaluation group consisting of three Kenyan graduate students studying either education or counseling and two secondary school teachers in Kenya was asked to evaluate the items for readability and wording. They evaluated the adequacy of the items across six areas: socio-psychological appropriateness, cultural relevance, language simplicity, length, format, and inclusiveness. Suggestions from the evaluation group included minor language changes, modifying some items so that they can ask about issues relevant to Kenyan students, and additional items. The successful use an evaluation group in this study re-affirmed the importance of similar groups in past studies (Ahia & Bradley, 1984). Recommendations from the evaluation group were applied in the revision of items.

A pilot study was conducted in a co-educational provincial secondary school in Nairobi Province, Kenya. A sample of 74 students was recruited from the school for the pilot study. After completing the items, the pilot study participants were asked to provide their feedback on the items' readability, language simplicity, content

applicability, and degree of difficulty. The results of the pilot study were used in additional revision of the items.

Three feedback questions assessed clarity and understanding, while a fourth question requested participants to provide suggestions for modification of items so that they are all applicable to the high school student population in Kenya. The participants indicated that they did not clearly understand 13 items. They also identified 19 items that they thought did not ask about students' needs. A preliminary principal component factor analysis was conducted and identified 24 items that did not fit with the initial two factors. Items were then identified for revision if they met the following criteria: (a) be identified by students as difficult to understand, (b) be identified as not clearly assessing student counseling needs, and (c) fail to load on any of the initial factors. Eleven items that met the above criteria were identified and revised as follows: 1 - To understand a wide variety of feelings (happy, sad and angry); 11 - To know about different jobs available in Kenya; 21 - To know how to take good notes; 27 - To understand that boys and girls can perform well in any subject; 44 - To know how to make plans for what I will do after completing high school ; 52 - To understand the process of selecting courses that

I would like to take; 60 - To know how to get along with members of both sexes while working together; 65 - To be able to state my own ideas effectively; 66 - To know how to develop skills that will help me excel in all subjects that I like to take; 73 - To handle discouragement from other students if I have an interest in or choose a course usually taken by the opposite sex; and 98 - To handle disapproval or opposition from others if I choose a course usually taken by the opposite sex.

Suggestions from the pilot group on the fourth feedback question were coded and tabulated. The suggestions were grouped into twenty-five variables. Sixteen participants recommended including items on sex and intimate relationships, 13 recommended asking about social relationships, and four recommended assessing need for help with regard to alcohol and drug abuse issues. Six participants recommended dropping items asking about marriage and parenthood. A few students recommended inclusion of items assessing student needs on different academic issues, financial need, and self-esteem. To cater for the recommendation by students, nine items were modified as follows: 13 - To know the importance of work in people's life; 15 - To know how to relate well with teachers; 29 - To develop good self-esteem; 41- To know the

relationship between school and work; 82 - To understand the importance of abstaining from premarital sex; 87 - To know how to make choices that fit both my needs and interests; 92 - To know how to handle intimate relationships; 94 - To know about the causes and results of family break-up; and 99 - To know how sex can affect my life. A summary of recommendations from the pilot study is presented in Appendix A.

After revision and modification of items, a pool of 100 items including four validity items, were included in the initial SCNS in readiness for data collection and statistical analysis.

Procedures

Permission was secured from the University of Missouri Institutional Review Board at two stages to conduct the pilot and main studies. Permission was also sought from the Government of Kenya through the Ministry of Education for conducting the study in the schools there. Four research assistants in Kenya were identified and trained for the administration of the instrument, data collection procedures, scoring of the items, and rating.

After the initial evaluation of items, the author identified the pilot study school and approached the school administration for approval and to provide consent on

behalf of the parents. A sample of students, mainly Form Three and Four students, was identified and gathered together in the school's assembly hall. The study package consisting of the consent form, questionnaires, and guidelines for completing and providing feedback was administered to the participants. In addition to recommendations provided by the students, preliminary factor analysis was performed on the data from the pilot study leading to modification of eleven items and adjustment of the nine items.

Sixteen secondary schools, eight boys-only and eight girls-only, were randomly sampled from a list of public provincial schools, two in each of the eight provinces in Kenya. After the schools were identified, the school administration was approached to secure their approval on behalf of the parents/guardians, and to provide a list of the students in the four grade levels. Eight schools agreed to participate in the study from a total of five provinces. One school was excluded from the study due to logistical problems leaving three boys-only and four girls-only schools from four provinces for the study.

The revised instrument was administered to the students of each school together in a space provide by the school. During the administration of the instrument, the

purpose of the study was first explained to the participants and then individual consent was secured. The instrument was then distributed to the participants and took between 30 and 45 minutes to complete. The participants provided the demographic data and then answered the items. After completing the instrument, the participants were debriefed and thanked for their participation. The participating schools were remunerated through verbal expressions of gratitude and by the author conducting motivational speeches to all students at a suitable time after data collection.

Statistical Analysis

Data from the completed instruments were coded in readiness for statistical analysis. A preliminary analysis was performed to screen the data for normality of distribution using means, standard deviations, skewness and kurtosis, and test of normality of assumption. Plots for each item were assessed for the assumption of linearity. A validity check was conducted by analyzing the response pattern on the four validity items.

Both confirmatory and exploratory factor analysis were conducted to examine the factors that define student counseling needs. Confirmatory factor analysis (CFA) was performed to test a three-factor model consisting of

academic, career and personal needs used in comprehensive school guidance and counseling programs (American School Counselor Association, 1997; Gysbers, 2004; Schmidt, 1999). Chi-square statistic and goodness of fit indexes were examined to determine whether the hypothesized factor structure was supported by the data.

Exploratory factor analysis (EFA) was performed to determine what factors account for student counseling needs in Kenya. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were applied to test whether the sample is factorable as recommended by Heppner and Heppner (2004). Principle axis factoring was conducted to extract factors since this method identifies fewer underlying constructs (Heppner, Kivlighan & Wampold, 1999). Factors that met the Kaiser-Guttman retention criteria of eigenvalues greater than 1.0 and were consistent with a scree plot test were identified and given a title. Further principal axis factor analyses were performed using both orthogonal (varimax) and oblique (promax) rotations to improve the interpretability of the factors. Factors were identified and named depending on the conceptual constructs they assessed. Estimates of alpha coefficients indicating the amount of internal consistency of the items within each factor and for the whole scale were then be identified and reported. Amount of

variance accounted for by each factor and the total score were also assessed and reported.

Additional analyses were conducted on the SCNS and its subscales using Univariate ANOVAS and MANOVAS to determine the differences by groups. The results of the statistical analyses were then presented and the implications discussed culminating in recommendations for the application of the SCNS and future research in the area of student counseling needs.

CHAPTER 4

RESULTS

This chapter presents the results of the statistical analyses. The chapter is divided into three sections. In the first section, the process used in screening the data to ensure normality of distribution and the rationale for replacing the missing data is explained. The second section presents the results of the confirmatory and exploratory factor analysis starting with testing of the hypothesized model and then determination of subscales constituting the SCNS. The last section presents the findings of the additional analysis that included univariate ANOVA and MANOVA to test the research hypothesis. Parts of the results are presented in tables and diagrams.

Data Screening

The data was first screened for presence of normality of distribution and linearity by examining frequency distributions and descriptive statistics. Skewness and kurtosis were within normal limits, and the scatter plots indicated that linearity was normal although most of the data for the items tended to be slightly positively skewed.

There were four validity test questions to check random responding. The data was examined for irregular answering patterns, random responding, and failure to conform to the instructions and explanation provided during the administration. Data from the 26 subjects who had failed at least two validity questions was excluded from the analyses. The decision to include data from participants who failed two or less of the validity questions was made by the author after examining the answering pattern of each subject and certifying that the participants were not answering randomly. Furthermore, during the administration of the survey, the author had observed that many participants had most difficulty understanding the validity questions and therefore may have indicated a level of agreement rather than act as the question requested. For instance, item 34 stated "Do not answer this question." Some participants indicated that they strongly disagreed with the item rather than omit answering. The author perceived that their disagreement had to do with whether to answer the question rather than omitting the item.

Missing data

The data received from 958 participants was analyzed for missing variables. The mean number of items answered by

each participant were 93 (SD = 9.06). Two participants completed demographic information but did not answer any of the SCNS items. 491 participants representing 51.3% returned fully completed surveys. 376 (39.3%) participants answered more than 90 items with 211 participants representing 22% missing to answer only one item. Due to the exploratory nature of this study and acknowledging the possibility that many of the participants were participating in such a study for the first time (as they indicated to the author during administration of the survey) data from participants who answered at least 91 (95%) items of the 96 SCNS items was included in the analysis. The missing values were replaced with series means rather than exclude the values since this would have meant rejecting meaningful data from a third of the participants. Furthermore, an examination of the literature revealed that there is no criteria yet established for determining the amount of missing data that can be replaced (Heppner & Heppner, 2004; Tabachnick & Fidell, 2001). The number of participants after data screening was reduced to 867.

Item Difficulty

All the participants answered items 42 ("To know how to explore careers in a specific area in which I am

interested") and 80 ("To know how to decide on a field of study") indicating the two items as the least difficult. Participants had most difficulty answering item 16 "To understand my values and know how to make choices" and item 90 "To understand how a job affects leisure time." However, the difficulty experienced by the participants was determined negligible since only 38 participants (4.4%) failed to answer item 16 and 31 participants (3.6%) failed to answer item 90.

Confirmatory Factor Analysis

The Measurement Model

The model investigated in this study consisted of three factors that were hypothesized to be constructs of the School Counseling Needs Scale (SCNS): academic, career, and personal needs. The academic needs construct was hypothesized to be measured by manifest variables 6-10, 15, 21-25, 36-40, 51-52, 55, 66-70, 73, 80, and 96-98. The career needs construct is measured by the manifest variables 11-14, 30, 41-45, 56-58, 60, 76-79, 86, and 90, while the personal needs construct is measured by the manifest variables 1-5, 16, 18-20, 26-29, 31-33, 35, 46-50, 53, 61-65, 71-72, 74-75, 81-85, 87-88, 91-95, and 99-100. (For a complete list of the items see Appendix F).

Analysis

Data were analyzed using the SAS System's CALIS procedure, and the model tested was covariance structure model with multiple indicators for all latent constructs. Standard deviations and intercorrelations for the study's 96 manifest variables were also assessed.

Confirmatory factor analysis was conducted to investigate the factor stability of a hypothesized three-factor solution of the fit of the data. The fit between the model and the data was assessed using a 3-step criterion: (1) reviewing the chi-square test; (2) reviewing the several alternative indexes of fit (Byrne 2001): the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the non-normed fit index (NNFI) and the comparative fit index (CFI); and (3) reviewing significance tests for factor loadings.

Chi-square test statistic was used to test the hypothesis that the model fits the data. According to Hatcher (1994), if the model provides a good fit, the chi-square value will be relatively small, and the corresponding p value will be relatively large (above .05 and preferably closer to 1.00).

The observed chi-square of 21102.47 was large and the p value small at $p < 0.001$ suggesting that the model is not

a good fit for the data. However, since literature has extensively noted that the chi-square statistic is likely to be significant with large samples (Bentler & Bonett, 1980; Byrne, 2001), the chi-square/degrees of freedom ratio were calculated to determine if the ratio was less than two as recommended (Hatcher, 1994). The chi-square/ df ratio for this model was greater than two at 4.7 ($\chi^2 = 21102.47$; $df = 4461$) confirming that the model does not fit the data.

The GFI, AGFI, NNFI, and CFI were less than the recommended value of above .9 (Hatcher, 1994) indicating that the present model does not provide an acceptable fit. A summary of the CFA statistics is presented in Table 2.

Further review of the data examined the significance tests for factor loadings. Before reviewing the results of the t tests, the author verified that there were no near-zero standard errors that would indicate an estimation problem. According to Hatcher (1994), t values greater than 1.960 are significant at $p < 0.05$; those greater than 2.576 are significant at $p < 0.01$; and those greater than 3.291 are significant at $p < 0.001$. The obtained t values in the output (see Appendix C) indicated that all factor loadings were significant at $p < 0.001$.

The standardized factor loadings ranged in size from .33 to .68 indicating that they were at least moderately large. The distribution of normalized residuals table was inspected to determine if the distribution met the following criteria: is centered on zero; is symmetrical; and contains none or few large residuals (Hatcher, 1994). The residual summary table (see Appendix C) was centered around zero but not perfectly symmetrical. The rank order table of the ten largest normalized residuals (Appendix D) indicated that they were all large (> 2) further confirming that the initial model may have underpredicted the relationship between variables. An examination of the Wald test and the Lagrange multiplier test was also consistent with this finding.

The results of the Confirmatory Factor Analysis provided evidence that the measurement model did not fit the data. First, the chi-square test was significant. Secondly, the chi-square/ df ratio, and the indexes of fit examined were all outside the acceptable range. Thirdly, the summary table for the normalized residuals was asymmetrical. Additionally, the nature of the ten largest normalized residuals suggested that more than one indicator variable may be multifactorial. These findings indicated

that the fit of the measurement model required modification hence the hypothesis was rejected.

Exploratory Factor Analysis

Initial exploratory factor analysis using principal axis factor extraction method, was performed on the set of 96 variables to determine the number of factors. The appropriateness of factor analysis was supported by Bartlett's test of sphericity which was significant ($\chi^2 = 43841.4$; $p < .001$). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded a value of .95, indicating that the sample size was large enough to evaluate the factor structure (see Tabachnick & Fidell, 2001).

Four variables were eliminated since they had communalities of less than .40. Twenty two factors that met the Kaiser-Guttman criterion of eigenvalue greater than 1.00 were extracted. An examination of the scree plot (Appendix B) also suggested that as many as six factors could be interpreted. The six factors had an eigenvalue of greater than 1.95 (Factor 1 = 26.8; Factor 2 = 4.2; Factor 3 = 3.5; Factor 4 = 2.5; Factor 5 = 1.97; Factor 6 = 1.96) all accounting for a total of 42.7% of the variance.

Further exploratory factor analysis using the principal axis extraction method was conducted specifying a six-, five-, four-, three-, and two-factor solution. The

following criteria were applied in retaining a preliminary factor structure: (a) retaining factor loadings that exceeded .40; (b) retaining factors that had at least three items per factor; and (c) deleting items with cross-loadings over .30 after rotation. Examination of the data indicated that the five-factor model was the most suitable solution since: (a) it yielded items with stronger factor loadings and fewer cross-loadings than other solutions, (b) there were no clear conceptual differences between factors in the two-, three-, and four-factor solutions, and (c) the six-factor solution yielded less than three items in one factor.

A comparison between orthogonal rotations (Varimax) and oblique rotation (Promax) indicated that the oblique rotation provided the best clarity for the interpretation of the solution. The oblique rotation was also preferred to maximize the variance of the coefficients, since the factors were hypothesized to be correlated because of the underlying construct of counseling needs. Based on the pattern matrix, variables that cross-loaded on more than one factor were eliminated from the analysis. After eliminating variables with loadings less than .40 there were 53 items left. Variable 96 "I need help to understand the role that academic achievement plays in determining my

future" loaded on Factor 2 that asked about drugs and premarital sex. This variable was dropped from the set since it was conceptually misplaced.

The five-factor oblique model reduced the 96-item set to a 52-item set with five factors. Fifteen variables loaded on the first factor, thirteen on the second factor, nine on the third, ten on the fourth, and five on the fifth factor. The first factor included items such as: "To know how to get along with boys and girls," "To know how to get help when my family has problems," "To know how the place where I live affects job opportunities," and "To develop close and lasting relationships." This factor was named 'Human Relationships' and accounted for 27.14% of the variance. The second factor included items such as: "To know how to seek help in selecting courses that would help meet my career goals", "To know how to prepare for careers in which I am interested", and "To know how to pick a good college." This factor was named 'Career Development' and accounted for 6.77% of the variance.

The third factor included items such as: "To know the effects of pre-marital sex and teenage pregnancy", "To be able to handle pressure from friends related to the use of drugs and alcohol", and "To know which leisure and recreational activities best fit my interests and needs."

This factor was named 'Social Values' and accounted for 5.21% of the variance. The fourth factor included items such as: "To know how to express those thoughts and feelings that are important to me", "To understand, accept and like myself", "To know how to express those thoughts and feelings that are important to me", and "To know how to develop learning habits and skills that I can use throughout life." This factor was named 'Self Development' and accounted for 3.74% of the variance. The fifth factor included items such as: "To know how to take good notes", and "To know how to organize my class and homework materials." This factor was named 'Learning Skills' and accounted for 3.07% of the variance. The five factors together explained 45.94% of the variance. The SCNS was composed of 52 variables that loaded on the five factors. Factor loadings, communality estimates, means and standard deviations are presented in Table 3.

Reliability Estimates

In order to examine the reliability of the scale, the author tested the Cronbach's coefficient alpha. The reliability estimates of the subscales were .88 for Human Relationships, .87 for Career Development, .87 for Social Values, .83 for Self Development, and .84 for Learning Skills. The reliability estimate for the whole SCNS was .94

(see Table 4). The findings of these analyses indicate that the five constructs can be reliably accessed as indicators of students' counseling needs.

Scale Intercorrelations

An intercorrelation matrix (Table 5) of the factor scores indicated significant correlations ($p < .01$) between the factors. There were moderate correlations between factors ranging from .38 to .62. These moderate interrelations suggest that the factors are interrelated but still represent distinct constructs.

Additional Analysis

Analysis of Variance (ANOVA)

A two-way analysis of variance was conducted on the data to test the hypothesis that "there are no significant differences between males and females, form one, two, three and four students on the SCNS." The results (see Table 6) indicate statistically significant difference between male and female students on the SCNS, $F(1, 852) = 22.88, p < .05$. However, the two-way ANOVA results fail to indicate that there is a main effect for form level as well as an interaction effect between gender and form on the SCNS. Since the author observed that the Levene's test of homogeneity of variance was significant suggesting that the variances are not equal, the Welch test of equality of

means was conducted as recommended by Keppel (1991) on each of the main effects. The results confirmed the ANOVA test that there is main effect for gender but no main effect for form level. Further two-way ANOVA was conducted at a significant level of $p = .01$ to cater for the possibility of committing a type-one error (see Keppel, 1991). Again, the results indicated that only the main effect gender was statistically significant.

Gender Differences

Descriptive statistics and profile plots indicated that female students had a higher mean ($M = 5.56$) than male students ($M = 5.36$) in general and at each form level. Both male and female students in Form Three had lowest mean in all, while Form Two students had the highest mean combined males and females. Among male students, Form Two students had the highest mean ($M = 5.58$), while Form Four females had the highest mean among female students ($M = 5.67$). The greatest difference between means was between males ($M = 5.32$) and females ($M = 5.67$) in Form Four.

Multivariate Analysis of Variance (MANOVA)

A 2 x 5 between-subjects multivariate analysis of variance was performed on the five subscales: relationships, career development, social values, self

development, and learning skills. The categorical variables were sex and grade level.

SPSS MANOVA using the Wilk's Lambda statistic revealed effects for sex $F(5, 848) = 6.10, p < .001$, and form level $F(15, 848) = 6.46, p < .001$. The interaction between sex and form had also a significant effect $F(15, 848) = 1.95, p < .05$. However, when the alpha was set at .01 to reduce the possibility of error due lack of equality of variance between groups, the main effects sex and form were still significant at $p < .01$ but the interaction was no longer significant.

The GLM procedure was performed to determine the effect of both sex and form on the subscales. There were significant differences between form levels on Social Values $F(3, 852) = 11.03, p < .01$, and Learning Skills $F(3, 852) = 6.48, p < .01$. There were also significant differences between male and female students on all subscales. The interaction between gender and form levels was only significant for Social Values subscale $F(3, 852) = 3.18, p < .05$. Tukey HSD and Bonferroni's Post Hoc tests indicated that there were significant differences between Form One and Three, Form One and Four, and Form Two and Three on the Social Values subscale.

Further examination of the estimated marginal means plots revealed that female students in Form Four had a higher mean than all the other students in the career development, human relationships, and self-development subscales. Female students in Form One had higher means in the social values and learning skills subscales. For the career development subscale, female students had higher means than male students, with the male students in Form Three having the lowest mean. In the human relationships subscale, the greatest mean differences existed between male and female students in Form Four and the least difference was between students in Form One.

Form Four male students had the lowest mean in the social values area, with a greater difference existing between their mean and that of their counterpart female students. The mean for Form Three students was generally low in the social values area but similar for both groups. In the self development subscale, Form Four students had higher means in each category, while Form One students had the lowest mean. Unlike all other gender groups, males in Form Three had a slightly higher mean than their female counterparts. In the learning skills subscale, Form Three students had the lowest mean, with the female students in that form again having a lower mean than their male

counterparts. Form One students had a higher mean than students in other forms. The pattern of female students having a higher mean than males was also evident in Form One, Two and Four.

The GLM procedure was performed to determine the effect of both form and school on the subscales. SPSS MANOVA using the Wilk' Lambda criterion indicated main effect for form $F(15, 831) = 3.31, p < .01$, school $F(30, 831) = 7.11, p < .01$, and the interaction $F(70, 831) = 1.48, p < .01$. There were significant differences between Schools on the subscales and the interaction between form and school was also significant for the human relationships and social values subscales. Tukey HSD and Bonferroni's Post Hoc tests indicated that there were significant differences between schools 2 and 3, 2 and 4, 3 and 5, 3 and 8, 4 and 7, and schools 4 and 8 on the Human Relationships subscale. There were also significant differences between school 2 and 4, 2 and 8, 3 and 5, 3 and 6, 3 and 8, 4 and 5, 4 and 6, 4 and 8, 5 and 7, 6 and 7, 6 and 8, 7 and 8 on the Social Values subscale.

An examination of the marginal means revealed that students in school 4 had a higher mean in all subscales except for the learning skills. Schools 4 and 7 tended to

have higher means in all forms while schools 2, 5, and 8 tended to have lower means. The mean for Form One students in school 5 was higher than other forms while it was the opposite in other schools.

CHAPTER 5

DISCUSSION

This chapter presents the results, discusses the implications of the findings, highlights the limitations of the study, and suggests recommendations for future directions. It is divided into five sections. The first part discusses the results of hypothesis testing in light of current literature. The next two parts examine the implications of the findings of the counseling needs of high school students in Kenya, and the establishment of guidance and counseling programs to meet these needs. The fourth part suggests issues to be considered in conducting further research on students' counseling needs. The fifth part highlights the limitations of the data collection method used, the generalization of the findings, and the restrictions due to the type of analyses conducted. The chapter ends with a brief summary of the study.

Discussion of Results from Hypothesis Testing

The results of statistical analysis revealed that the counseling needs of secondary school students in Kenya assessed by this study cannot be grouped into three content areas of academic, career and personal needs but into five

areas of human relationships, career development, social values, self development, and learning skills. Additionally, there are many factors that seem to influence the way Kenyan students identify their guidance and counseling needs. These findings are discussed in detail in this section.

This study started by identifying methods used in different countries in assessment and grouping of students' guidance and counseling needs. Since student counseling needs are normally grouped into the three content areas of academic, career, and personal needs (Ahia & Bradley, 1984; Gysbers, 2004; Navin, 1989), the author developed a pool of items drawn from these domains. This grouping then formed the basis for the first research hypothesis that variables identifying the counseling needs of high school students in Kenya can be grouped into the three content areas of academic, career, and personal. This hypothesis was tested using confirmatory factor analysis (CFA). Results of CFA failed to provide a good fit of the data within the hypothesized three-factor model implying that the counseling needs assessed by the instrument cannot be grouped into just three domains. This finding suggests that there may be fewer or more than three underlying constructs

that define the students' counseling needs. The first hypothesis was therefore rejected.

Ordinarily, adjustments would have to be made to the data to improve the goodness of fit. However, since this study was mainly exploratory, and the hypothesis had been based on the grouping of the content areas in the model used in the U.S., the author deemed it necessary to conduct exploratory factor analysis (EFA) rather than continue with CFA. CFA would only have fitted the data into the three domains, while EFA would enable the author to investigate what other factors defined the counseling needs of high school students in Kenya.

Exploratory factor analysis revealed the presence of five factors suggesting that five distinct components underlie the scores on the SCNS. The five factors contributed to the amount of variance accounted for by the scale in the following order, from strongest to weakest: Human Relationships, Career Development, Social Values, Self Development, and Learning Skills. The presence of five factors indicates a departure of the SCNS from similar instruments that assess student counseling needs only within the three content areas. The five constructs may therefore be indicative of specific needs among Kenyan students not explicit in other countries. It is remarkable

that an earlier study on guidance and counseling programs in Kenyan secondary schools had organized students' problems into five categories: (a) psycho-social, (b) family problems, (c) educational problems, (d) financial problems, and (e) career problems (Sindabi 1992). Issues such as human relationships and social values seem especially important to Kenyan students. Alternatively, it may be that other factors specific to students there underscore the need for assistance in developing relationships and maintaining social values. Cultural traditions, religious values and practices, and extended families have already been suggested as some of the issues that adversely affect students (Njeru & Orodho, 2003; Sindabi, 1992).

The results of EFA and the high reliability estimates for the SCNS and its subscales confirmed the second hypothesis that the SCNS can be used reliably to assess guidance and counseling needs of secondary school students in Kenya. These results are consistent with past studies that validated instruments that are commonly used to identify students' needs (Abumere, 1986; Ahia & Bradley, 1984; Gallagher et al. 1992; Navin, 1989; Navin, et al., 1996; Olszewski-Kibilius & Scott, 1992; Wagner, 1999;). The SCNS will therefore contribute significantly towards the

identification of students' guidance and counseling needs in Kenya.

Additional analyses were conducted to test the third, fourth and fifth hypotheses. The third hypothesis tested whether there are statistically significant differences between male and female high school students in Kenya in the identification of guidance and counseling needs. The results of ANOVA revealed that male and female students indicate needs differently. This suggested that there is a gender effect in the identification of needs. The fourth hypothesis tested for significant differences between high school students at different Form levels in Kenya in identification of their guidance and counseling needs. The results of MANOVA indicated that, while there are no differences between students in all form levels in the way they identify guidance and counseling needs in general, there are significant differences when identification of needs is specific to human relationships and social values. The fifth hypothesis stated that there are no significant differences between different schools in identification of guidance and counseling needs. Since the findings revealed significant differences between schools, the hypothesis was rejected.

The results of the additional analyses indicate that gender and school affect the way students perceive their need for guidance and counseling. While all students show a need for help, the intensity of that need seem to be influenced by other factors such as being male or female. Possible explanations for gender differences are highlighted later in this study.

The findings also indicate that students in different schools in Kenya may have different needs. Although the schools were hypothesized to be similar since they were all provincial schools, it may be that other factors such as the location of the school impact the needs of students. Literature already shows that students in schools located in rural areas have different experiences from those in schools located in urban areas (Kithyo, 1999). It is notable that, the differences were mainly on the issue of human relationships and social values. A possible explanation for these differences could be aspects such as cultural traditions and social-economic background. It is important to note that while provinces are Kenya's main geographic regions, such regions tend to be dominated by specific cultural/ethnic groups. These groups may have considerable cultural differences when it comes to human

relationships and customs and these may influence the way students perceive their need for counseling differently.

Implications of the Findings

The emergence of career development as a construct suggests that it may be an essential area in which students need assistance. Students particularly expressed need for assistance with determination of courses and the selection of colleges. Assistance in these areas may enable them achieve their career aspirations. As noted in the literature section, performance in the examination taken at the end of high school in Kenya determines the program of study that a student will be admitted into in a college. It is therefore likely that students in high school experience high levels of anxiety as they approach the end of high school since they feel less empowered to choose the program of interest. This supposition is supported by the findings presented below that Form Four students expressed a higher need for assistance with career development than students in the lower forms.

There has been an amazing turn around in the way the importance of career development is viewed by Kenyan secondary school students. Students today indicate a higher need for career guidance than students in the past decade. For instance, Sindabi (1992) found that career problems

were ranked as the least concerns by secondary students in Kenya. The author pointed out that students mostly consulted their parents for career information more than they did school counselors. In light of this point, career development may not have been a major concern at school at that time.

Today however, the need for career guidance has increased as evidenced by this study. First, declining economic performance in the 1990's has led to 57% of the population in Kenya living in poverty (Saitoti, 2004). Increased poverty leads to limited availability of resources and higher prevalence of diseases. Students may therefore be encountering an increased need to acquire relevant career information that will enable them seek better paying jobs. Secondly, many schools in Kenya have in the past appointed some teachers as career masters without providing them the necessary training and facilities for career guidance (Kilonzo, 1981). Such career masters usually assume that all students will end up in universities and therefore focus their work only on helping students complete university application forms (Kithyo & Petrina, 2002; Sindabi, 1992). Since only less than 10% of the 79% students who complete high school join universities (Saitoti, 2004), high school students may be feeling the

need for more assistance with career guidance other than just application to college and universities.

Thirdly, it is evident that some students were pressured by their parents into certain careers that the parents thought were good despite the students' interests being elsewhere (Kithyo & Petrina, 2002). With improvements in career guidance programs, career resource facilities in schools, and awareness of the labor market, students are upholding the idea of acquiring relevant career information while in school. Career development is therefore an important factor in identification of students' guidance and counseling needs.

Although factor analysis revealed five factors, conceptually, the variables in three of the factors can be grouped into one general emphasis area. The variables under the Human Relationships, Social Values, and Self Development subscales refer to the need by students to learn about themselves and others (see Schmidt, 1999). In the school guidance and counseling program present in the United States, these belong to the personal development content area (Gysbers & Henderson, 2006). The presence of three factors in this area of emphasis rather than in a single factor seems to indicate that high school students in Kenya may perceive their needs more distinctly than

students in the United States. For instance family and gender issues (Human Relationships subscale) are correlated and separate from issues concerning alcohol and drug abuse, sex education (Social Values subscale), self motivation and fulfillment (Self Development subscale).

The presence of more than three factors is also consistent with the findings in other countries such as Hong Kong (Circular Memorandum 108, 2002). As noted in the literature section, an assessment of student needs in South Africa (Mathabe & Temane, 1993) identified closely similar areas to the present study: human relationships, assessment of values, career guidance, moral education, and curriculum assessment and adjustment. It is therefore striking that African students seem to share similar needs when it comes to relationships and social values.

It is likely that social and cultural factors play a major role in the way students in Kenya determine their needs. Research has indicated that socio-cultural and religious factors affect access to and participation in secondary education in Kenya (Njeru & Orodho, 2003). For that reason, participants in this study were drawn from a sample of high school students in provincial schools in Kenya. Provincial high schools had been perceived to be representative of the high school student population since

they admit students randomly drawn from the whole province. This assumption implied that there would be equal distribution in terms of participants' demographics.

The majority of participants identified with a specific ethnic group (49 tribes were identified) and religious affiliation (mostly Christian or Islam). This diversity of backgrounds could be significantly impacting the perceived needs of students in terms of human relationship issues and social values. For instance, gender and family relationships may be understood differently by students in Africa as compared to students in the western world (Mpofu, 1994). Mbiti (1975) noted that it is the responsibility of elders in many African traditions to teach morality to the young people. This suggests that the young people in Kenya are likely to see some needs as distinct from others depending on who should offer them assistance.

Another remarkable finding was that issues with regard to alcohol/drug abuse and sexual awareness grouped together and separate from other variables that assessed need for counseling on personal development and relationships. This factor is unique in that it is not consistent with the factors in other student counseling needs scales. As reported in the literature, Kenyan schools have in the past

years encountered student unrest and violence (ANB-BIA Supplement Issue, 2001; Daily Nation, August 7, 2000). Substance abuse has especially been proposed as one of the causes for the increased school violence (Buku & Mwanzia, 2004; Kariuki, 2004; Mwanzia & Mudi, 2005; Waihenya, 2000). Additionally, sexual violence, HIV/AIDS, and teenage pregnancy are issues affecting students in Kenya (Bregman & Bryner, 2003; Saitoti, 2004; UNICEF Country Office, 2000). These issues have even a greater effect on female students (Wachira, 2004). Consequently, secondary school students feel the need for assistance with issues related to premarital sex and substance abuse since they affect them daily.

The emergence of Social Values as an identified counseling need by the students gives credence to observations in literature. It is also notable that during the pilot study, some participants suggested to the author the need to include items addressing the need for counseling on issues related to premarital sex and teenage pregnancy. Kenyan students therefore seem to require help in acquiring information about alcohol, drug abuse, premarital sex, teenage pregnancy, and proper use of leisure time.

Among all the areas of emphasis, Kenyan students seem to require the least assistance with academic issues. Only five variables loaded on this area, and they specifically address participation in class and completion of assignments. Various factors such as the education system, the structure of the school, and awareness of academic requirements may be influencing the way students perceive their need for such help. The majority of the students interviewed were in boarding schools where they spend at least three months within the school compound. This provides them with plenty of time for individual and group study possibly enabling them to meet their academic needs independently. The findings from Form One students support this inference since they indicated the highest need for assistance with learning skills. Their freshman status may also distinguish them from students in higher forms in terms of acquisition of studying skills and familiarization with school system.

With regard to classroom participation, it has been suggested that students may not conform to their teachers' requirements due to external reasons such as hunger, long distances traveled to school, and family responsibilities (Human Rights Watch, 1999). All these factors may be affecting students' abilities to participate actively in

class and complete assignments successfully hence students sense the need for help in this area.

Further examination of the SCNS and its subscales revealed that female students in Kenya indicate a higher need for counseling than male students. Specifically, female students indicated higher need for counseling in all subscale areas. Sindabi (1992) attributed gender differences especially when it comes to importance of career guidance to varying patterns of socializations for males and females in the Kenyan society. Similarly, Kithyo and Petrina (2002) also found that gender was the most central factor in students' career choice. It is therefore apparent that gender does affect the way students state their needs not just for career development but in other areas of guidance and counseling. Since the investigation of factors that account for gender differences was beyond the scope of this study, this finding therefore suggests the need for further research in this area.

Future researchers may particularly be interested in studying why greater differences exist between male and female students in Form Four. One would assume that since Form Four students are in their final year of high school, they would share closely similar needs in all areas. There may be cultural factors that are salient in the way Form

Four males and females see their ability to negotiate relationships and social values. Male students may feel more capable of negotiating family relationships and understanding the effect of substance abuse and premarital sex than female students due to different socializations. The developmental stage of students in Form Four may also influence how they understand their roles as they approach adulthood. Male students may feel more empowered by their families to make their own choices while female students are less empowered and have to rely on others for important life decisions. As observed, female students in Form Four indicated the highest need for career development, assistance with human relationships, and self development. In contrast, male students in Form Four indicated a high need for help in self development only.

Surprisingly, students in Form Three indicated the lowest need for counseling. Their pattern of identification of counseling needs was actually different from all the other forms since they had the least differences in most of the areas of emphasis. Form Three males had slightly higher mean scores than their female counterparts in the self development area and learning skills. A possible explanation for the lower counseling needs in Form Three could be the presence of career guidance in the last term

of Form Two as they make decisions on their subject area of emphasis. Also there is a possibility that Form Three students are at the stage of their high school life when they don't feel the need for a lot of attention since they have been in school long enough to get accustomed to the system and are also more than an year away from graduation. They may be taking issues lightly and not feeling the urgency to resolve them.

Implications for the Development of Guidance and Counseling Programs

The purpose of this study was to develop an instrument that can be used in the identification of guidance and counseling needs of secondary school students in Kenya. Since the reliability estimates indicated that SCNS can be used in the identification of students' needs, this instrument will be essential to planning, organizing, and implementing guidance and counseling programs in Kenyan schools. The instrument will not only be used with in identification of individual students' needs but also in identification of group needs so that responsive services can be planned accordingly.

An important implication of the present findings is the establishment and development of school guidance and counseling programs in Kenya. Since the results indicate

that Kenyan students may require help in addressing various counseling needs, then it is important for the Ministry of Education to institute programs in schools that will address the needs of students appropriately. Some authors have already called for the establishment of guidance and counseling programs in all schools in Kenya (Human Rights Watch, 1999; Kithyo & Petrina, 2002; Sindabi, 1992). Kenyans are especially seeking for a holistic education that not only promotes economic growth, but also social values important for the development of the nation (Abagi et al, 2000). Furthermore, school guidance and counseling services in Kenya are conceptualized and implemented in terms of cultural values, social realities, and validated techniques of practice (Sindabi, 1992). The SCNS should be upheld as one of the techniques in assessment of students' needs.

The Ministry could start by identifying professionals who can conduct studies in schools and then make recommendations for policy changes that will ensure that more lasting guidance and counseling programs are established in all schools. The establishment of such programs will also require provision of relevant personnel and facilities. Teachers and school counselors need to be trained to offer guidance and counseling to students. The

current trend of asking some teachers to take up the role of guidance and counseling while still maintaining their full teaching load (Kilonzo, 1981) is likely to give rise to ethical violations and professional inefficiency. It is especially unreasonable to expect a teacher who is charged with the role of supervising a student's academic and behavioral discipline to develop a trusting relationship with the same student as a counselor.

For guidance and counseling programs to be effective in Kenya, trained professionals should be employed to manage and offer services in schools. Such professionals should also be provided with relevant facilities and structural support. At the same time, universities and teacher training institutions will have to develop programs that train professional school counselors and other guidance personnel.

There is more to the success of school guidance and counseling programs than the assessment of needs and availability of trained professionals. Gysbers and Henderson (2006) have already underscored the necessity of aspects such as content, organizational framework, resource development, management, and accountability. For programs to be effective, all these factors should be incorporated. This implies that there may be a need to overhaul the

present education system in Kenya. The process of change could start with policy makers at the top of the hierarchy of education administration. Since management of education in Kenya is centralized under the Minister of Education, then he or she could propose policies that can be ratified by the national assembly setting the ball rolling for implementation down to the individual schools. This centralized structure seems to be an advantage in that it would overcome bureaucratic impediments that may slow the process. It is therefore feasible for Kenya to establish strong guidance and counseling programs in all schools within a short duration.

In places where school guidance and counseling programs have already been established, the SCNS will be a crucial instrument in assessment of students' needs. Guidance curriculum and responsive services can then be structured to address the five content areas identified by the instrument namely human relationships, career development, social values, self development, and learning skills. A guidance curriculum could be taught to students at different levels or in small groups to address issues that are similar to them. The needs of each student will also be easily identified after completing the SCNS and responsive services planned accordingly. Information

gathered over time through administration of the SCNS will then be used to evaluate programs' success and develop them further.

Implications for Future Research

In future, the author plans to validate the instrument with different high school student populations such as national schools, district schools, and private schools. There author also intends to test the instrument with students from other provinces not included in the present study. The author proposes other recommendations such as (a) studying the differences between genders, (b) examining the factors that cater for lower counseling needs among Form Three students, (c) evaluating differences by school, and (d) replicating the present study with primary school students. Of most importance is the use of SCNS to identify student counseling needs.

Past studies have also assessed students' needs from other perspectives such as parents, teachers, school administrators, and the community (Navin 1989; Sindabi 1992). It will be important for future research to assess students' guidance and counseling needs from these groups' perspectives. The SCNS can be modified and tested with specific groups so that there is unison of approach. The implication of using the SCNS instrument is that school

personnel will identify the counseling needs of students and set up a guidance curriculum and responsive services. Data collected from students can be used to normalize the instrument and expand its applicability to diverse student populations within and outside Kenya. Schools can also use data acquired through the SCNS to focus their services to vital activities and therefore reduce costs.

Limitations of the Study

Several limitations should be noted in this study. First only students from provincial schools were sampled for the study. This leaves out three other important categories: national schools, district schools, and private schools that also admit a significant number of students in Kenya. While provincial schools were purposively chosen because they represent a wider diversity in terms of demographics, national schools normally admit high performing students, and district schools lower performing students in terms of grades. These specific groups might identify unique needs not apparent in the sampled population. The high cost of private schools restricts their intake to students from higher social-economic status, a group that may have different needs from those stated by students in provincial schools. Care should

therefore be taken while using the SCNS with students in these types of schools.

The participants were drawn from only four of the eight provinces in Kenya, with one of the province represented by only one school. Since schools from Coast, North Eastern, Nyanza, and Rift Valley provinces were not represented it would probably be counter-productive to use the SCNS with students in those provinces without validating the instrument with them.

About half of the participants indicated that they belong to same cultural group. A possible explanation for this may be that two provinces, Central and Nairobi, neighbor each other with Central being dominated by that one cultural group. Conducting further analysis with specific cultural groups may provide more information on their differences. For the present study, it was not possible to conduct such analyses since they were beyond the scope of scale development.

The use of CFA as the initial analysis and then EFA may seem contrary to the normal trend by researchers. In this study, the author had hypothesized that the counseling needs of high school students in Kenya will load into the three content areas of academic, career, and personal development. The data may have failed to fit this model

since some of the initial items were modified after the pilot study. Also the language of items was revised to account for clarity and understanding by the Kenyan student population. All these factors may interfere with the performance of the statistical analysis. Furthermore, minor differences exist between the English version spoken in Kenya and the American-English version of the initial items. Since the items were developed by the author while residing in the United States and also by modifying items from instruments used there, it is possible that some participants may have interpreted some items to be referring to other aspects than intended. If such a situation occurred, then it could have led to dropping of some important variables or even the presence of more factors.

The naming of factors represents the conceptual meaning that the author perceived to be underlying the items that grouped together. Some factor names such as Social Values and Self Development may be applicable to a wider context than the group of items in each factor. While the author consulted widely in naming the factors, it is possible that different readers might think of other suitable terms. Care should therefore be taken in using the names of the factors conclusively.

Summary of Findings

This study was designed to develop an instrument that can be reliably used in assessment of the needs of secondary school students in Kenya. The necessity of developing an instrument was arrived at after an examination of past literature revealed that there are no needs assessment instruments that have been validated with this population. The author developed a list of items after keenly evaluating the present instruments in the United States and other countries. Data was collected from a sample of students attending high schools in Kenya. Factor analysis revealed the presence of five factors that underlie the students' guidance and counseling needs. Additional analysis indicated differences by gender and school in the way students identify their needs. The discussion of findings proposed various explanations for the grouping of variables and the differences identified.

The development of SCNS sets precedence for the development of other instruments assessing student counseling needs in Kenya and possibly other parts of Africa. The exploratory nature of the study supersedes the limitations identified above. The large sample size including the diversity of schools, geographical regions, cultural backgrounds, SES, grade levels, age, and religious

affiliation supports the generalization of the results rather than counteract it. The gender distribution was also ideal since it was equal. The high reliability estimates for both the SCNS and the subscales also provides credibility to the instrument.

The hypothesis that the SCNS can be reliably applied in identification of the counseling needs of high school students in Kenya is confirmed. It is also appears that there are more factors that influence the identification of student counseling needs than the hypothesized three. In addition, gender and form level, also seem to have an effect on the needs of students. SCNS will therefore provide a much need instrument to identify students' guidance and counseling needs, and by extension provide them with services that ensure a holistic education.

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Table 1

Number of Schools That Experienced Student Unrest by Province in the Year 2000/2001

Province	Existing number of secondary schools	Number of schools that experienced student unrests	Percentage of schools going on strike	Gravity
Central	630	85	13.5	Violent and destructive
Coast	151	4	2.6	Destruction of school property
Nyanza	680	7	1.0	Destruction of school property
Eastern	626	76	12.4	Destruction of school property and loss of life
Rift Valley	625	50	8.0	Violent and destructive
Western	408	19	4.7	Minor destruction to school property
Nairobi	93	2	0.02	Minor damage to school property
North Eastern	21	7	33.3	Destruction of school property

Note. The data in the table is from the Ministry of Education, Science and Technology, 2001, ANB-BIA Supplement Issue (October), <http://www.peace.link.it/anb-bia/nr419/e08.html>

Table 2

Goodness-of-fit Indicators for the SCNS Hypothetical Model for the 96 Items

Model	χ^2	<i>df</i>	χ^2/df	GFI	AGFI	NNFI	CFI
SCNS model	21102.47	4461	4.73	.59	.57	.59	.59

Note. SCNS = Student Counseling Needs Scale; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NNFI = non-normed fit index; CFI = comparative fit index.

Table 3

Item, Component Loading, Communality Estimates, Means, and Standard Deviations for the Five-Factor Student Counseling Needs Scale

Item	Factor loading	h^2	M	SD
Factor 1: Human Relationships (15 variables)				
To handle disapproval or opposition from others if I choose a course usually taken by the opposite sex	.64	.45	5.04	1.61
To know about the causes and results of family break-up	.61	.44	5.13	1.56
To know about the kind of decisions and difficulties I will face as a parent	.60	.51	5.07	1.56
To understand how a job affects leisure time	.58	.32	5.09	1.44
To know about jobs that are usually filled by the opposite sex, but are available to both sexes	.58	.32	4.78	1.74
To understand how being male or female affects my career choices	.58	.39	4.89	1.69
To develop close and lasting relationships	.55	.28	5.34	1.37
To know how to deal with sickness or death in the family	.54	.39	5.44	1.17
To handle discouragement from other students if I have an interest in or choose a course usually taken by the opposite sex	.52	.32	5.06	1.61
To know how to get along with boys and girls	.50	.35	5.27	1.29
To know how to get along with members of both sexes while working together	.49	.32	5.34	1.32
To know how the place where I live affects job opportunities	.48	.37	5.17	1.33
To take courses appropriate to my career choice even though most often they are taken by the opposite sex	.47	.30	4.99	1.61
To know some things that cause problems in families such as moving, divorce, death or unemployment	.47	.43	5.13	1.48
To know how to find help when my family has problems	.46	.34	5.48	1.14
Factor 2: Career Development (13 variables)				
To know how to pick a good college	.66	.49	5.60	1.00
To understand my interests and abilities, and how these can help me make a career choice	.66	.49	5.76	.69
To know how to prepare for careers in which I am interested	.62	.47	5.84	.58
To know how to choose colleges that would help prepare me for a specific career	.59	.41	5.71	.83
To understand the process of selecting courses that I would like to take	.59	.30	5.80	.71
To know how to seek help in selecting courses that would help meet my career goals	.57	.42	5.73	.73
To know about various colleges and what they offer	.52	.39	5.52	1.08
To know how to make plans for what I will do after completing high school	.51	.41	5.71	.83
To know how to explore careers in a specific area in which I am interested	.47	.30	5.78	.67

To know how to select courses that will help me meet my career goals	.45	.36	5.82	.64
To know how to increase motivation for studying subjects that I think are difficult	.45	.30	5.78	.73
To know how to make choices that fit both my needs and interests	.45	.36	5.73	.75
To know how to develop skills that will help me excel in all subjects that I like to take	.43	.37	5.83	.60
Factor 3: Social Values (9 Variables)				
To understand the importance of abstaining from premarital sex	.83	.59	5.20	1.56
To know the effects of pre-marital sex and teenage pregnancy	.77	.59	5.20	1.50
To know how sex can affect my life	.69	.45	5.27	1.46
To be able to handle pressure from my friends related to the use of drugs and alcohol	.57	.48	5.32	1.40
To know how to help a friend who has a problem with drugs or alcohol	.55	.43	5.56	1.11
To know where to find help for alcohol or drug problems	.53	.37	5.10	1.59
To know how to say no to people who try to get me to use cigarettes, drugs and alcohol	.53	.34	5.48	1.31
To know what drugs are and what they can do to people	.52	.47	5.23	1.37
To know which leisure and recreational activities best fit my interests and needs	.43	.40	5.40	1.22
Factor 4: Self-Development (9 Variables)				
To understand my strengths and talents	.68	.39	5.85	.64
To know how to develop learning habits and skills that I can use throughout life	.65	.41	5.84	.60
To know how to study and how to get the most out of my study time	.64	.40	5.84	.62
To know how to handle my problems	.59	.34	5.75	.74
To understand, accept and like myself	.59	.40	5.62	.97
To know how to improve my writing, reading, and speaking skills	.49	.41	5.59	.98
To know how to improve my test-taking skills	.48	.34	5.67	.81
To be able to complete the tasks and projects which I start	.47	.35	5.57	.94
To know how to express those thoughts and feelings that are important to me	.47	.28	5.60	.92
To develop good work habits	.41	.31	5.64	.79
Factor 5: Learning Skills				
To know how to take good notes	.77	.58	5.47	1.04
To know how to listen and ask questions in class	.74	.60	5.61	.94
To know how to start and finish my assignments well	.71	.62	5.54	1.02
To know how to organize my class and homework materials	.59	.49	5.52	1.02
To understand that boys and girls can perform well in any subject	.40	.43	5.23	1.45

Table 4

Means, Standard Deviations, and Coefficient Alpha Reliability Estimates

Variables	N	Mean	SD	alpha
1. Human Relationships	15	77.20	13.54	.88
2. Career Development	13	74.60	6.31	.87
3. Social Values	9	47.74	8.83	.87
4. Self Development	10	56.98	5.14	.83
5. Learning Skills	5	27.36	4.32	.84
6. SCNS	52	283.88	30.42	.94

Table 5

Correlations between Human Relationships, Career Development, Social Values, Self Development, and Learning Skills Subscales

Variable	1	2	3	4	5
<i>n</i> = 867					
1. Human Relationships	—	.60**	.62**	.38**	.48**
2. Career Development		—	.52**	.50**	.50**
3. Social Values			—	.39**	.54**
4. Self Development				—	.57**
5. Learning Skills					—

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

Table 6

Two-Way ANOVA Summary Table for Gender and Form Differences

Source	Sum of Squares	<i>df</i>	Mean Squares	F
Sex	7.59	1	7.59	22.88*
Form	2.51	3	.84	2.53
Interaction effect	1.24	3	.413	1.25
Error	282.57	852	.33	

Note. * $p < .05$

APPENDIX A

Summary of recommendations from Pilot Study Participants

Answers to feedback questions

Q1: Did you understand all the questions? Yes No

If your answer is “No”, please write the numbers of the questions you did not understand.

1, 16, 17, 58, 59, 89, 91, 92, 93, 94, 95, 96, 100

Q3: Did all the questions ask about the needs of secondary school students?

Yes No

If your answer is “No”, write the numbers of the questions that did not ask about the needs of secondary school students.

10, 13, 14, 15, 26, 31, 41, 48, 50, 56, 57, 58, 60, 61, 65, 73, 80, 90, 94

Comments from students with number of respondents in brackets

- Include exposure to dream career – after school
- Ask about religious influence
- Pregnancy
- Peer pressure
- AIDS/HIV (2) and STDs; safe sex
- Problems of drug (4) and alcohol abuse
- How difficult or easy the syllabus is
- Handling intimate relationships (3)
- Importance of abstaining from sex
- Opinion on teaching methods
- Effect of being on scholarship
- Ask questions relating to life in school not out of school
- Ask about sex in school: student-student, student-teachers (9)
- Too much on lifestyle, and too little on help-style
- Financial need; poverty (3)
- Problems at home (2)
- Parental pressure (2)
- Seriousness in school (2)
- Entertainment
- Self-esteem (2)
- Avoid questions on tribalism
- Avoid questions on marriage (6)
- Attitude towards and relationship with teachers (9)
- Involvement in making choices

– Subject load

Revised Items in the Initial SCNS

Item	Pilot Study Item	Revised Item
1	To identify and understand a wide variety of feelings (happy, sad and mad)	To understand a wide variety of feelings (happy, sad and angry)
11	To know about different jobs in different areas	To know about different jobs available in Kenya
21	To know how to take good notes in class	To know how to take good notes
27	To know that boys and girls can perform well in any subject	To understand that boys and girls can perform well in any subject
44	To know how to make plans for what I will do after completing high school (job opportunities, training programs, college/vocational schools)	To know how to make plans for what I will do after completing high school
52	To understand the process of selecting courses that I am would like to take	To understand the process of selecting courses that I would like to take
60	To know how to get along with members of both sexes on the job	To know how to get along with members of both sexes while working together
65	To be able to state my own ideas	To be able to state my own ideas effectively
66	To know how to develop skills that will help me excel in all the subjects that I would like to take	To know how to develop skills that will help me excel in all subjects that I like to take
73	To handle discouragement from other students if I want to choose a course usually taken by the opposite sex	To handle discouragement from other students if I have an interest in or choose a course usually taken by the opposite sex
98	To handle adult disapproval if I want to choose a course usually taken by the opposite sex	To handle disapproval or opposition from others if I choose a course usually taken by the opposite sex

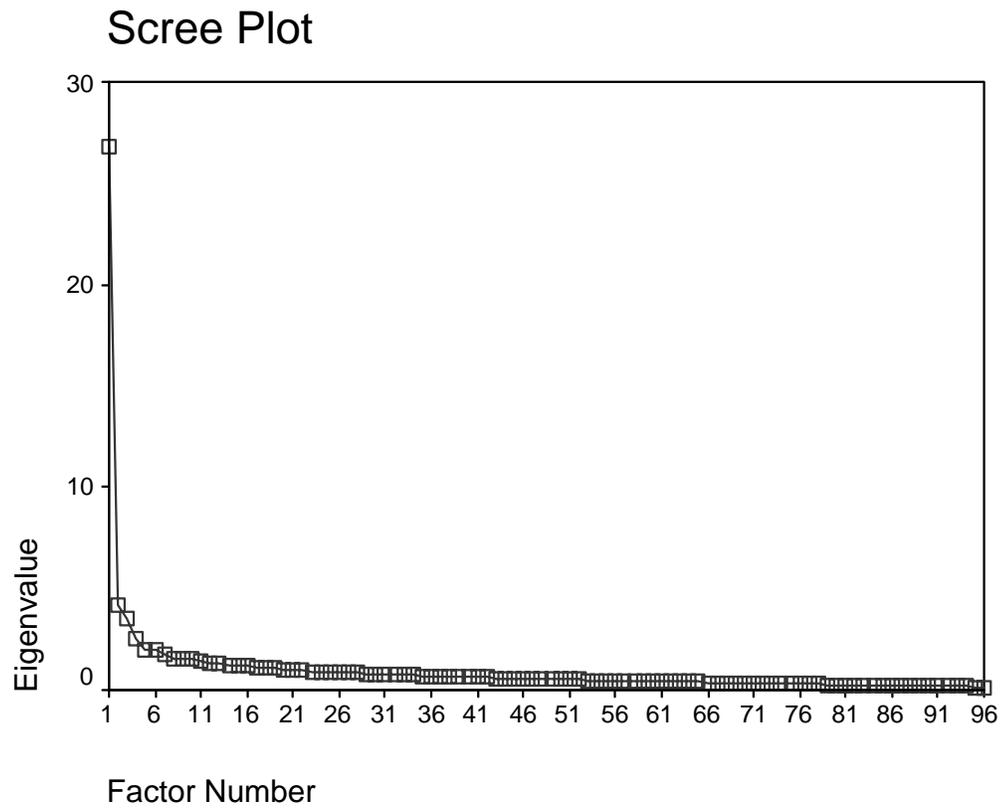
New/Modified Items for Initial SCNS

Item	Pilot Study Item	New/Modified Item
13	To know some reasons why people work	To know the importance of work in people's life
15	To know some things I like to do	To know how to relate well with teachers
29	To know what I like to do for fun	To develop good self-esteem
41	To know about possible careers and the world of work	To know the relationship between school and work
82	To know how to come up with many	To understand the importance of

	possible choices to settle a problem	abstaining from premarital sex
87	To know how to select courses that fit both my needs and interests	To know how to make choices that fit both my needs and interests
92	To understand the role of marriage and how it works	To know how to handle intimate relationships
94	To know about the causes and results of divorce	To know about the causes and results of family break-up
99	To know how friends can affect my leisure time	To know how sex can affect my life

APPENDIX B

Catell's Scree Plot



APPENDIX C

Distribution of Normalized Residuals

The CALIS Procedure

Covariance Structure Analysis: Maximum Likelihood Estimation

Distribution of Asymptotically Standardized Residuals

Each * Represents 20 Residuals

-----Range-----	Freq	Percent	
-8.37855 -7.85489	1	0.02	
-7.85489 -7.33123	1	0.02	
-7.33123 -6.80757	1	0.02	
-6.80757 -6.28391	3	0.06	
-6.28391 -5.76025	6	0.13	
-5.76025 -5.23659	18	0.39	
-5.23659 -4.71293	50	1.07	**
-4.71293 -4.18928	95	2.04	****
-4.18928 -3.66562	100	2.15	*****
-3.66562 -3.14196	159	3.41	*****
-3.14196 -2.61830	215	4.62	*****
-2.61830 -2.09464	310	6.66	*****
-2.09464 -1.57098	317	6.81	*****
-1.57098 -1.04732	377	8.10	*****
-1.04732 -0.52366	357	7.67	*****
-0.52366 0	386	8.29	*****
0 0.52366	498	10.70	*****
0.52366 1.04732	328	7.04	*****
1.04732 1.57098	282	6.06	*****
1.57098 2.09464	260	5.58	*****
2.09464 2.61830	197	4.23	*****
2.61830 3.14196	169	3.63	*****
3.14196 3.66562	129	2.77	*****
3.66562 4.18928	111	2.38	*****
4.18928 4.71293	75	1.61	***
4.71293 5.23659	41	0.88	**
5.23659 5.76025	31	0.67	*
5.76025 6.28391	35	0.75	*
6.28391 6.80757	30	0.64	*
6.80757 7.33123	21	0.45	*
7.33123 7.85489	12	0.26	
7.85489 8.37855	10	0.21	
8.37855 8.90221	5	0.11	
8.90221 9.42587	4	0.09	
9.42587 9.94953	2	0.04	
9.94953 10.47319	4	0.09	
10.47319 10.99685	3	0.06	
10.99685 11.52051	2	0.04	
11.52051 12.04417	1	0.02	
12.04417 12.56783	3	0.06	
12.56783 13.09149	2	0.04	
13.09149 13.61515	1	0.02	
13.61515 14.13880	1	0.02	
14.13880 14.66246	2	0.04	
14.66246 15.18612	0	0.00	
15.18612 15.70978	0	0.00	
15.70978 16.23344	0	0.00	
16.23344 16.75710	0	0.00	
16.75710 17.28076	0	0.00	
17.28076 17.80442	0	0.00	
17.80442 18.32808	1	0.02	

APPENDIX D

Rank order of the 10 largest normalized residuals

Rank Order of the 10 Largest Asymptotically Standardized Residuals

Row	Column	Residual
V79	V78	18.17277
V94	V93	14.40171
V91	V82	14.16261
V78	V77	14.06643
V22	V21	13.55871
V79	V77	12.94565
V43	V42	12.59478
V99	V91	12.27603
V98	V73	12.26794
V99	V82	12.10371

APPENDIX E

Pilot Study Questionnaire

**The Development of the Student Counseling Needs
Scale Questionnaire**

This questionnaire is designed to find out your needs as a student. The information you provide is confidential and will be used to provide the services that students require while in school. Please answer the questions truthfully. Remember this is not an examination and there are no right or wrong answers.

SECTION I

1) School: _____ 2) Province: _____

3) Age: _____ 4) Male _____ Female _____

5) Tribe: _____ 6) Religion: _____

7) Form: One Two Three Four

9) Home location: Urban Rural

8) Please indicate your parent/guardians' occupation and highest level of education (e.g. university, college, high school, primary, none)

	Occupation	Education
Father:	_____	_____
Mother:	_____	_____
Guardian 1:	_____	_____
Guardian 2:	_____	_____

SECTION II

For each of the items statements below, please circle the number that is appropriate for you under one of the six categories:

Strongly Disagree (STD)	Moderately Disagree (MD)	Slightly Disagree (SD)	Slightly Agree (SA)	Moderately Agree (MA)	Strongly Agree (STA)
1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
1.	To identify and understand a wide variety of feelings (happy, sad and mad)	1	2	3	4	5	6
2.	To know how to express those thoughts and feelings that are important to me	1	2	3	4	5	6
3.	To know how to handle my problems	1	2	3	4	5	6
4.	To understand my strengths and talents	1	2	3	4	5	6
5.	To understand, accept and like myself.	1	2	3	4	5	6
6.	To know how to improve my writing, reading, and speaking skills	1	2	3	4	5	6
7.	To be able to complete the tasks and projects which I start	1	2	3	4	5	6
8.	To know how to improve my test-taking skills	1	2	3	4	5	6
9.	To know how to develop learning habits and skills that I can use throughout life	1	2	3	4	5	6
10.	To know how to study and how to get the most out of my study time	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
11.	To know about different jobs in different areas	1	2	3	4	5	6
12.	To know about good work habits	1	2	3	4	5	6
13.	To know some reasons why people work	1	2	3	4	5	6
14.	To understand why people need to work together	1	2	3	4	5	6
15.	To know some things I like to do	1	2	3	4	5	6
16.	To understand my values and know how to make choices	1	2	3	4	5	6
17.	Circle "3" for this question	1	2	3	4	5	6
18.	To know how to look at my decisions so that I can change poor ones	1	2	3	4	5	6
19.	To know how to accept responsibility for my decisions	1	2	3	4	5	6
20.	To know how to amend friendship after conflict	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate for you under one of the six categories:

Strongly Disagree (STD) 1 **Moderately Disagree (MD) 2** **Slightly Disagree (SD) 3** **Slightly Agree (SA) 4** **Moderately Agree (MA) 5** **Strongly Agree (STA) 6**

	As a student, I would like:	STD	MD	SD	SA	MA	STA
21.	To know how to take good notes in class	1	2	3	4	5	6
22.	To know how to listen and ask questions in class	1	2	3	4	5	6
23.	To know how to organize my class and homework materials	1	2	3	4	5	6
24.	To know how to start and finish my assignments well	1	2	3	4	5	6
25.	To know how to do my best on tests and examinations	1	2	3	4	5	6
26.	To understand how to work and play with both boys and girls in an activity	1	2	3	4	5	6
27.	To know that boys and girls can perform well in any subject	1	2	3	4	5	6
28.	To know about different hobbies and leisure activities that I can do during my spare time	1	2	3	4	5	6
29.	To know what I like to do for fun	1	2	3	4	5	6
30.	To know how to develop a career plan	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
31.	To understand the differences and similarities between people of different tribes	1	2	3	4	5	6
32.	To know how to get along with boys and girls	1	2	3	4	5	6
33.	To know how to ask parents, teachers and other adults for help	1	2	3	4	5	6
34.	Do not answer this question	1	2	3	4	5	6
35.	To know how to say no to people who try to get me to use cigarettes, drugs and alcohol	1	2	3	4	5	6
36.	To understand the challenges that students have in high school	1	2	3	4	5	6
37.	To know where to go to get help when I have a problem concerning my studies	1	2	3	4	5	6
38.	To know how to complete high school successfully	1	2	3	4	5	6
39.	To make a plan of high school classes which will be best for me, and review and change them as necessary.	1	2	3	4	5	6
40.	To know how to seek help in selecting courses that would help meet my career goals	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

Strongly Disagree (STD) 1 **Moderately Disagree (MD) 2** **Slightly Disagree (SD) 3** **Slightly Agree (SA) 4** **Moderately Agree (MA) 5** **Strongly Agree (STA) 6**

	As a student, I would like:	STD	MD	SD	SA	MA	STA
41.	To know about possible careers and the world of work	1	2	3	4	5	6
42.	To know how to explore careers in a specific area in which I am interested	1	2	3	4	5	6
43.	To know how to prepare for careers in which I am interested	1	2	3	4	5	6
44.	To know how to make plans for what I will do after completing high school (job opportunities, training programs, college/vocational schools)	1	2	3	4	5	6
45.	To understand my interests and abilities, and how these can help me make a career choice	1	2	3	4	5	6
46.	To know how to deal with the consequences of saying no to my friends	1	2	3	4	5	6
47.	To know what drugs are and what they can do to people	1	2	3	4	5	6
48.	To know how to get along with my family	1	2	3	4	5	6
49.	To know some things that cause problems in families such as moving, divorce, death or unemployment	1	2	3	4	5	6
50.	To know how to find help when my family has problems	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
51.	To know how to find courses that fit both my needs and interests	1	2	3	4	5	6
52.	To understand the process of selecting courses that I am would like to take	1	2	3	4	5	6
53.	To know what my goals are and the value of these goals	1	2	3	4	5	6
54.	To know how basic skills (math, reading, etc) relate to my career goals	1	2	3	4	5	6
55.	To know how to work together with other students in class	1	2	3	4	5	6
56.	To know how the place where I live affects job opportunities	1	2	3	4	5	6
57.	To know about jobs that are usually filled by the opposite sex, but are available to both sexes	1	2	3	4	5	6
58.	To take courses appropriate to my career choice even though most often they are taken by the opposite sex	1	2	3	4	5	6

59.	Circle "1" for this question	1	2	3	4	5	6
60.	To know how to get along with members of both sexes on the job	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

Strongly Disagree (STD) 1	Moderately Disagree (MD) 2	Slightly Disagree (SD) 3	Slightly Agree (SA) 4	Moderately Agree (MA) 5	Strongly Agree (STA) 6
--	---	---	--	--	---

	As a student, I would like:	STD	MD	SD	SA	MA	STA
61.	To know how to help with family responsibilities	1	2	3	4	5	6
62.	To know how to avoid and resolve conflict with others	1	2	3	4	5	6
63.	To have confidence in myself	1	2	3	4	5	6
64.	To understand how my feelings affect my behavior	1	2	3	4	5	6
65.	To be able to state my own ideas	1	2	3	4	5	6
66.	To know how to develop skills that will help me excel in all the subjects that I would like to take	1	2	3	4	5	6
67.	To understand what courses I should take to get to a college program that I like	1	2	3	4	5	6
68.	To know how to increase motivation for studying subjects that I think are difficult	1	2	3	4	5	6
69.	To understand the language and methods that teachers use in class	1	2	3	4	5	6
70.	To understand the purpose of examinations	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
71.	To be able to deal with life when I feel down	1	2	3	4	5	6
72.	To be able to understand others	1	2	3	4	5	6
73.	To handle discouragement from other students if I want to choose a course usually taken by the opposite sex	1	2	3	4	5	6
74.	To know good ways of communicating my feelings	1	2	3	4	5	6
75.	To develop close and lasting relationships	1	2	3	4	5	6
76.	To understand how being male or female affects my career choices	1	2	3	4	5	6
77.	To know about various colleges and what they offer	1	2	3	4	5	6
78.	To know how to pick a good college	1	2	3	4	5	6
79.	To know how to choose colleges that would help prepare me for a specific career	1	2	3	4	5	6
80.	To know how to decide on a field of study	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

Strongly Disagree (STD) 1 **Moderately Disagree (MD) 2** **Slightly Disagree (SD) 3** **Slightly Agree (SA) 4** **Moderately Agree (MA) 5** **Strongly Agree (STA) 6**

	As a student, I would like:	STD	MD	SD	SA	MA	STA
81.	To accept others as well as be accepted by them	1	2	3	4	5	6
82.	To know how to come up with many possible choices to settle a problem	1	2	3	4	5	6
83.	To know how to help a friend who has a problem with drugs or alcohol	1	2	3	4	5	6
84.	To know which leisure and recreational activities best fit my interests and needs	1	2	3	4	5	6
85.	To be able to handle pressure from my friends related to the use of drugs and alcohol	1	2	3	4	5	6
86.	To know how to select courses that will help me meet my career goals	1	2	3	4	5	6
87.	To know how to select courses that fit both my needs and interests	1	2	3	4	5	6
88.	To know how to develop recreational interests that will make my leisure time more enjoyable (for example hobbies and sports)	1	2	3	4	5	6
89.	Skip this question	1	2	3	4	5	6
90.	To understand how a job affects leisure time	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
91.	To know the effects of pre-marital sex and teenage pregnancy	1	2	3	4	5	6
92.	To understand the role of marriage and how it works	1	2	3	4	5	6
93.	To know about the kinds of decisions and difficulties I will face as a parent	1	2	3	4	5	6
94.	To know about the causes and results of divorce	1	2	3	4	5	6
95.	To know how to deal with sickness or death in the family	1	2	3	4	5	6
96.	To understand the role that academic achievement plays in determining my future	1	2	3	4	5	6
97.	To know how to improve my grades	1	2	3	4	5	6
98.	To handle adult disapproval if I want to choose a course usually taken by the opposite sex	1	2	3	4	5	6
99.	To know how friends can affect my leisure time	1	2	3	4	5	6
100.	To know where to find help for alcohol or drug problems	1	2	3	4	5	6

SECTION III

This section requests you to provide your feedback and suggestions about the questions you have answered above. Your suggestions will be used to make the questions easier for other students to understand. Remember it is your opinion and there are no right or wrong answers.

1. Did you understand all the questions? Yes No
If your answer is "No", please write the numbers of the questions you did not understand.

2. Do you know all the words used in the questions? Yes No
If your answer is "No", please write all the words you don't know.

3. Did all the questions ask about the needs of secondary school students? Yes No
If your answer is "No", write the numbers of the questions that did not ask about the needs of secondary school students.

4. What suggestions can you give to the researcher about the questions so that they all ask about the needs of secondary school students?

APPENDIX F

Main Study Questionnaire

The Development of the Student Counseling Needs Scale
Questionnaire

This questionnaire is designed to find out your needs as a student. The information you provide is confidential and will be used to provide the services that students require while in school. Please answer the questions truthfully. Remember this is not an examination and there are no right or wrong answers.

SECTION I

1) School: _____ 2) Province: _____

3) Age: _____ 4) Male _____ Female _____

5) Tribe: _____ 6) Religion: _____

7) Form: One Two Three Four

9) Home location: Urban Rural

8) Please indicate your parent/guardians' occupation and highest level of education (e.g. university, college, high school, primary, none)

	Occupation	Education
Father:	_____	_____
Mother:	_____	_____
Guardian 1:	_____	_____
Guardian 2:	_____	_____

SECTION II

For each of the items statements below, please circle the number that is appropriate for you under one of the six categories:

Strongly Disagree (STD)	Moderately Disagree (MD)	Slightly Disagree (SD)	Slightly Agree (SA)	Moderately Agree (MA)	Strongly Agree (STA)
1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
1.	To understand a wide variety of feelings (happy, sad and angry)	1	2	3	4	5	6
2.	To know how to express those thoughts and feelings that are important to me	1	2	3	4	5	6
3.	To know how to handle my problems	1	2	3	4	5	6
4.	To understand my strengths and talents	1	2	3	4	5	6
5.	To understand, accept and like myself.	1	2	3	4	5	6
6.	To know how to improve my writing, reading, and speaking skills	1	2	3	4	5	6
7.	To be able to complete the tasks and projects which I start	1	2	3	4	5	6
8.	To know how to improve my test-taking skills	1	2	3	4	5	6
9.	To know how to develop learning habits and skills that I can use throughout life	1	2	3	4	5	6
10.	To know how to study and how to get the most out of my study time	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
11.	To know about different jobs available in Kenya	1	2	3	4	5	6
12.	To know develop good work habits	1	2	3	4	5	6
13.	To know the importance of work in people's life	1	2	3	4	5	6
14.	To understand why people need to work together	1	2	3	4	5	6
15.	To know how to relate well with teachers	1	2	3	4	5	6
16.	To understand my values and know how to make choices	1	2	3	4	5	6
17.	Circle "3" for this question	1	2	3	4	5	6
18.	To know how to look at my decisions and how to change poor ones	1	2	3	4	5	6
19.	To know how to accept responsibility for my decisions	1	2	3	4	5	6
20.	To know how to amend friendship after conflict	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate for you under one of the six categories:

	Strongly Disagree (STD) 1	Moderately Disagree (MD) 2	Slightly Disagree (SD) 3	Slightly Agree (SA) 4	Moderately Agree (MA) 5	Strongly Agree (STA) 6				
	As a student, I would like:				STD	MD	SD	SA	MA	STA
21.	To know how to take good notes				1	2	3	4	5	6
22.	To know how to listen and ask questions in class				1	2	3	4	5	6
23.	To know how to organize my class and homework materials				1	2	3	4	5	6
24.	To know how to start and finish my assignments well				1	2	3	4	5	6
25.	To know how to do my best on tests and examinations				1	2	3	4	5	6
26.	To understand how to relate well with both boys and girls in an activity				1	2	3	4	5	6
27.	To understand that boys and girls can perform well in any subject				1	2	3	4	5	6
28.	To know about different hobbies and leisure activities that I can do during my spare time				1	2	3	4	5	6
29.	To develop good self-esteem				1	2	3	4	5	6
30.	To know how to develop a career plan				1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
31.	To understand the differences and similarities between people of different tribes	1	2	3	4	5	6
32.	To know how to get along with boys and girls	1	2	3	4	5	6
33.	To know how to ask parents, teachers and other adults for help	1	2	3	4	5	6
34.	Do not answer this question	1	2	3	4	5	6
35.	To know how to say no to people who try to get me to use cigarettes, drugs and alcohol	1	2	3	4	5	6
36.	To understand the challenges that students have in high school	1	2	3	4	5	6
37.	To know where to go to get help when I have a problem concerning my studies	1	2	3	4	5	6
38.	To know how to complete high school successfully	1	2	3	4	5	6
39.	To make a plan of high school classes which will be best for me, and review and change them as necessary.	1	2	3	4	5	6
40.	To know how to seek help in selecting courses that would help meet my career goals	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

Strongly Disagree (STD) 1 **Moderately Disagree (MD) 2** **Slightly Disagree (SD) 3** **Slightly Agree (SA) 4** **Moderately Agree (MA) 5** **Strongly Agree (STA) 6**

	As a student, I would like:	STD	MD	SD	SA	MA	STA
41.	To know the relationship between school and work	1	2	3	4	5	6
42.	To know how to explore careers in a specific area in which I am interested	1	2	3	4	5	6
43.	To know how to prepare for careers in which I am interested	1	2	3	4	5	6
44.	To know how to make plans for what I will do after completing high school	1	2	3	4	5	6
45.	To understand my interests and abilities, and how these can help me make a career choice	1	2	3	4	5	6
46.	To know how to deal with the consequences of saying no to my friends	1	2	3	4	5	6
47.	To know what drugs are and what they can do to people	1	2	3	4	5	6
48.	To know how to get along with members of my family	1	2	3	4	5	6
49.	To know some things that cause problems in families such as moving, divorce, death or unemployment	1	2	3	4	5	6
50.	To know how to find help when my family has problems	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
51.	To know how to find courses that fit both my needs and interests	1	2	3	4	5	6
52.	To understand the process of selecting courses that I would like to take	1	2	3	4	5	6
53.	To know what my goals are and the value of these goals	1	2	3	4	5	6
54.	To know how basic skills (math, reading, etc) relate to my career goals	1	2	3	4	5	6
55.	To know how to work together with other students in class	1	2	3	4	5	6
56.	To know how the place where I live affects job opportunities	1	2	3	4	5	6
57.	To know about jobs that are usually filled by the opposite sex, but are available to both sexes	1	2	3	4	5	6
58.	To take courses appropriate to my career choice even though most often they are taken by the opposite sex	1	2	3	4	5	6
59.	Circle "1" for this question	1	2	3	4	5	6
60.	To know how to get along with members of both sexes while working together	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

	Strongly Disagree (STD) 1	Moderately Disagree (MD) 2	Slightly Disagree (SD) 3	Slightly Agree (SA) 4	Moderately Agree (MA) 5	Strongly Agree (STA) 6	
	As a student, I would like:						
61.	To know how to help with family responsibilities	1	2	3	4	5	6
62.	To know how to avoid and resolve conflict with others	1	2	3	4	5	6
63.	To have confidence in myself	1	2	3	4	5	6
64.	To understand how my feelings affect my behavior	1	2	3	4	5	6
65.	To be able to state my own ideas effectively	1	2	3	4	5	6
66.	To know how to develop skills that will help me excel in all subjects that I like to take	1	2	3	4	5	6
67.	To understand what courses I should take to get to a college program that I like	1	2	3	4	5	6
68.	To know how to increase motivation for studying subjects that I think are difficult	1	2	3	4	5	6
69.	To understand the language and methods that teachers use in class	1	2	3	4	5	6
70.	To understand the purpose of examinations	1	2	3	4	5	6
	As a student, I would like:						
71.	To be able to deal with life when I feel down	1	2	3	4	5	6
72.	To be able to understand others	1	2	3	4	5	6
73.	To handle discouragement from other students if I have an interest in or choose a course usually taken by the opposite sex	1	2	3	4	5	6
74.	To know good ways of communicating my feelings	1	2	3	4	5	6
75.	To develop close and lasting relationships	1	2	3	4	5	6
76.	To understand how being male or female affects my career choices	1	2	3	4	5	6
77.	To know about various colleges and what they offer	1	2	3	4	5	6
78.	To know how to pick a good college	1	2	3	4	5	6
79.	To know how to choose colleges that would help prepare me for a specific career	1	2	3	4	5	6
80.	To know how to decide on a field of study	1	2	3	4	5	6

For each of the items statements below, please circle the number that is appropriate under one of the six categories:

Strongly Disagree (STD) 1 **Moderately Disagree (MD) 2** **Slightly Disagree (SD) 3** **Slightly Agree (SA) 4** **Moderately Agree (MA) 5** **Strongly Agree (STA) 6**

	As a student, I would like:	STD	MD	SD	SA	MA	STA
81.	To accept others as well as be accepted by them	1	2	3	4	5	6
82.	To understand the importance of abstaining from premarital sex	1	2	3	4	5	6
83.	To know how to help a friend who has a problem with drugs or alcohol	1	2	3	4	5	6
84.	To know which leisure and recreational activities best fit my interests and needs	1	2	3	4	5	6
85.	To be able to handle pressure from my friends related to the use of drugs and alcohol	1	2	3	4	5	6
86.	To know how to select courses that will help me meet my career goals	1	2	3	4	5	6
87.	To know how to make choices that fit both my needs and interests	1	2	3	4	5	6
88.	To know how to develop recreational interests that will make my leisure time more enjoyable for example hobbies and sports)	1	2	3	4	5	6
89.	Skip this question	1	2	3	4	5	6
90.	To understand how a job affects leisure time	1	2	3	4	5	6

	As a student, I would like:	STD	MD	SD	SA	MA	STA
91.	To know the effects of pre-marital sex and teenage pregnancy	1	2	3	4	5	6
92.	To know how to handle intimate relationships	1	2	3	4	5	6
93.	To know about the kinds of decisions and difficulties I will face as a parent	1	2	3	4	5	6
94.	To know about the causes and results of family break-up	1	2	3	4	5	6
95.	To know how to deal with sickness or death in the family	1	2	3	4	5	6
96.	To understand the role that academic achievement plays in determining my future	1	2	3	4	5	6
97.	To know how to improve my grades	1	2	3	4	5	6
98.	To handle disapproval or opposition from others if I choose a course usually taken by the opposite sex	1	2	3	4	5	6
99.	To know how sex can affect my life	1	2	3	4	5	6
100.	To know where to find help for alcohol or drug problems	1	2	3	4	5	6

APPENDIX G

School Principal's Informed Consent and Approval for the Study

I have read the research proposal being submitted by Pius Nyutu, MA, and we have discussed it. I understand that he is conducting this research under the supervision of Norman Gysbers, PhD, and under the sponsorship of the Department of Educational, School and Counseling Psychology of the University of Missouri-Columbia.

I understand that the purpose of this study is to develop an instrument that can be used to assess the counseling needs of secondary school students in Kenya. I understand the methods by which he proposes to collect data from a sample of students in this school. I understand that the participating students will complete questions that ask about their academic, career, and personal needs. They will also be asked to complete some questions about their background. They may also be asked to provide some feedback information about the questions. I understand that the survey is projected to take about 45 minutes to complete.

I understand that the students' participation is voluntary, and they will also provide their individual consent. I understand that they are free to withdraw their participation at any time they may choose to do so. I understand that in his publication of results he will ensure anonymity of all participants of the school and the school system. I understand that the data collected will be kept confidentially by him, and will only be accessible to him, his supervisor Dr. Norman Gysbers, and to the Ministry of Education in Kenya if requested. I further understand that this research will not interfere with the normal activities of this school, and that Pius Nyutu will not interfere with the students' work.

I understand that no harm will occur to the students for their participation or lack of participation in this study. I further understand that, if I have any concerns about the student's participation, I can withdraw them from the study at any time before, during, and after the data collection.

I agree to allow this study to be conducted in this school. I also agree on behalf of parents/guardians, to the participation of the students selected, since acquiring parental consent is not possible at this time.

I understand that I may contact the primary researcher, Pius Nyutu, M.A., at 1-573-268-8398 or pnnmqc@mizzou.edu, if I have questions about the study, would like updates about the study, or would like to request that he present his research to a group of people. I also understand that I may also contact his dissertation supervisor, Dr. Norman Gysbers at 1-882-6386 or gysbersn@missouri.edu. If I have any questions regarding the rights of research participants, I may contact the University of Missouri-Columbia Institutional Review Board at 1-573-882-9585.

Signature: _____

Date: _____

APPENDIX H

Informed Consent

The Development of Student Counseling Needs Scale

Description of this Research Project

Thank you for considering participating in this research study. This study is being conducted by Pius Nyutu a doctoral student at the University of Missouri-Columbia. The study is conducted under the direction of Dr. Norman Gysbers and has been approved by the University of Missouri Institutional Review Board.

The purpose of this research is to develop an instrument that will be used to identify the counseling needs of secondary school students in Kenya. The results will help schools to establish counseling and guidance programs. The schools will also know how to help students overcome personal problems, increase their performance, and prepare for their future careers.

Your Participation is Voluntary

If you choose to participate, you will complete questions that ask you about your academic, career, and personal needs. You will also be asked to complete some questions about your background. You may also be asked to provide some feedback information about the questions. The questions will take about 45 minutes to complete.

There are no material benefits or harmful risks associated with your participation in this study. You may however experience some discomfort while answering some questions that ask about your personal needs. This discomfort is not more than what you encounter in everyday life. You may choose to stop participating at any time before, during, and after the survey.

Your school Principal has agreed that this research be conducted in this school. The Principal has also approved your participation as a representative of your parents/guardians.

Consent

I consent to take part in the research investigating the counseling needs of secondary school students in Kenya. It has been explained to me and I understand that:

- My participation is voluntary, and there is no penalty for refusal to participate. I am free not to answer any question that I choose not to answer. I am free to withdraw my consent and may end my participation at any time.
- My participation is confidential, and my name will not be associated with any reported results of this research. My name will be kept separate from my completed survey.
- My participation or non-participation will not affect my grades and academic

performance. The information that I provide will not be seen by the school administration, teachers, students, or anybody else not associated with this study.

- My participation in this research is not expected to involve any risks greater than those ordinarily encountered in daily life.

If I have any questions at any time about this research or the procedures, I may contact the researcher or the supervisor at the addresses below:

Researcher: Pius Nyutu
Department of Educational, School and Counseling Psychology
16 Hill Hall
University of Missouri
Columbia, MO 65201
USA
Phone: 1-573-268-8398
Email: pnnmqc@mizzou.edu

Supervisor: Norman Gysbers, PhD
Professor, Department of Educational, School and Counseling
Psychology
16 Hill Hall
University of Missouri
Columbia, MO 65201
USA
Phone: 1-573-882-6386
Email: gysbersn@missouri.edu

If you require any additional information on the University of Missouri's policies on human participation in research, you may contact the MU Campus Institutional Review Board office at 1-573-882-9585. Address: 483 McReynolds Hall, University of Missouri, Columbia, MO 65201, USA.

Please sign below to indicate that you have read and understand the above information and you agree to participate in this research.

Name/Signature: _____

Date: _____

APPENDIX I

SCNS Oral Script

Good afternoon? Thanks for giving me a moment to speak with you. My name is Pius Nyutu, and I am currently studying for a PhD degree in Counseling Psychology at the University of Missouri - Columbia in the United States of America. I did my high school and college studies here in Kenya and worked for some years as a teacher and education administrator before moving to the US for graduate studies. I have a special interest in helping secondary school students to complete their education and prepare for careers of their choice.

I am here at your school today to ask you for your participation in a study that I am doing at the University to identify the counseling needs of secondary school students in Kenya. The findings will be used to establish programs that can help you and other students meet those needs.

To participate, you will fill out a survey that will require approximately 45 minutes of your time. I will hand out packets that include the questionnaire and two consent forms. I will then read through the consent form and let you ask questions. If you choose to participate, please sign the consent form and then complete the questionnaire. Please do not put your name on the questionnaire. After you finish, put one signed consent form in this box indicated "Signed Consent Forms", and the completed questionnaire in this other box indicated "Questionnaires". Keep the other consent form for your own records.

Your participation is completely voluntary. You will not be penalized in anyway if you choose not to participate. Your participation or non-participation will not affect your grades or any other aspect of your life as a student. Make you sit on a place where no one else can see what you are writing on the surveys. This will ensure your privacy and confidentiality. I will keep the information you provide safely, and it will not be seen by your teachers, parents, other students, and or anybody else not associated with this research.

If you have any questions, I will be available as you complete the surveys and afterwards, so feel free to approach me at any time. You can also contact me later through the contact provided in the consent form.

Thank you for your help!

VITA

Pius Nyutu grew up in Kenya. After attending schools in Central and Nairobi Provinces, he received the following degrees: Bachelor of Philosophy (1991) and Bachelor of Theology (1994) from Pontifical Urbanian Univeristy, Rome; Post-Graduate Diploma in Education from Catholic University of Eastern Africa at Nairobi (2000); and M.A. in School Counseling and Guidance from Lewis University at Romeoville, Illinois. He will receive a Ph.D. in Counseling Psychology in 2007. Mr. Nyutu will complete his psychology internship at the University of Florida Counseling Center in Gainesville, Florida. His areas of special interests are the development of counseling methods applicable to Africans, school counseling in Kenya, and multicultural competencies.