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The Extent to Which Counsellors' Perception Influences Utilization of Modern Technology in Counselling: A Case of Kenya Universities Professional Counsellors Association (KUPCA) in Kenya

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Abstract:

Technological knowledge is vital in every profession and counselling is not excluded. Unfortunately, many mental health service professionals especially counsellors have not yet fully embraced utilization modern technology and are resistant on utilization of modern technology in counselling. Efficient utilization of modern technology in counselling enables counsellors perform various counselling tasks which enables them to be professionally competitive. The purpose of the study was to investigate the extent to which counsellors' perception on utilization of modern technology in counselling: A Case of Kenya Universities Professional Counsellors Association (KUPCA) in Kenya. The research was aimed at finding out the extent to which counsellors perception influence utilization of modern technology. The study applied descriptive research design and used total population sampling a type of purposive sampling technique. The sample size was the entire population since the number was not too large to handle. The data was collected by use of online questionnaire and interview schedule. The reliability of the tools was verified through piloting which was done through selected University Counsellors in Nakuru County. Validity of the instrument was ensured through content validation through expert judgment. The data collected were processed and analyzed using inferential statistics which were correlation and regression models and descriptive statistics that entailed frequency counts, percentages, means and standard deviations with the aid of Statistical Package for Social Sciences (SPSS) version 22.0. The findings revealed that Counsellor's perception had a significant effect on utilization of modern technology which accounted up to 27.2%. This finding may be used to advocate on counsellor professional utilization of modern technology in enhancing counselling competency and efficiency, improving counselling delivery in Kenyan Institutions of learning, and designing a curriculum that is inclusive of technological components.

Keywords: Counseling, utilization, modern technology

1. Introduction

The chapter gives background information of the study by reviewing the work of previous researchers by outlining current and previous statistics.

1.1. Background to the Study

Many counselling professionals are yet to fully embrace modern technology in accomplishing various counselling tasks which include and not limited to; client appointments, report writing, record keeping, making clinical assessment and testing, consultation and client referral. The extent to which it's being utilized by counsellors and counsellor educators in their work is virtually unknown (Cabaniss, 2001). Modern technology in focus here include; use of computers related technology (CRT), social media, software's, telephones, television and any other technological equipment that create a bridge between the counselor and the client.

Despite the countless benefit of technology in counseling, counselors still state inability to use technology hence underutilization of technology to improve counselling services. Cabaniss (2001) stated that some tasks cannot be done by use of modern technology such computer related technology (CRT) such tasks are undertaken during confidentiality

discussions (during structuring), establishing rapport, confidentiality discussion, evaluating client problems and utilizing effective intervention. However, this does not mean that the above tasks cannot be accomplished by use of any other technology; innovation of technological tools such as software can assist in accomplishing various tasks without harming or breaching client confidentiality. Due to lack of knowledge and skills on modern technology, many counselors struggle with paper work due to overwhelming demands of clients' services, inability to organize one's time, continuous changes of paperwork requirement and lack of computer skills and knowledge Campbell (2005). Some counselors struggle with tradition counseling method of conducting counseling such as face to face method even when it proves impossible, for this reason, it's important for counselors to recognize that modern technology is changing the way counselling is conducted not only in Kenya, but also worldwide. This includes the way decisions are made either professionally or individually (Sabella, 2003). It's important to note that technologies over the years have proved to be useful especially in situation where a client is geographically or emotionally unable to arrange face to face meeting or is uncomfortable in face to face counselling. Telephone and online therapy helps bridge the distance and, assists in breaking down barriers that could have prevented potential clients from visiting counseling offices, has enabled clients feel less threatened by face to face counselling, makes it possible for clients not to go through face to face with a counselor who they may consider a stranger, allows the client opportunity to express themselves more and helps counselors to engage more online through putting various issues and information online, which helps in normalizing issues, which clients might be struggling with hence going along way in reducing stigma. Integration of modern technology in counselling was enable counselors and generally mental health professional to see the importance and opportunity available and enjoy the benefit of modern technology, while ensuring efficiency and competency. This will enable counsellors be in a position to take advantage of various opportunities offered with technology while remaining professionally competitive.

1.2. Statement of the Problem

With every profession now embracing modern technology, the importance of technology in counselling cannot be overemphasized. However, despite counselor's knowledge on importance of modern technology in their day to day work and various positive benefits and opportunities offered counsellors have not yet embraced use of modern technology in their practice. Little has been done to investigate the factors influencing use of modern technology among practicing counsellors, such as perception. Some counsellors are also resistant to embrace technology in accomplishing day to day tasks citing likelihood of breach of ethical codes such as confidentiality. For this reason, it's important to understand the reason and cause of resistance by counsellors that makes them stick to traditional ways of offering/practicing counseling. The study was geared towards investigating the extent to which counsellors' perception influences utilization of modern technology in counselling: A case of Kenya Universities Professional Counsellors Association (KUPCA) in Kenya.

1.3. Purpose of the Study

The purpose of the study was to investigate the extent to which counsellors' perception influence utilization of modern technology in counselling: A case of Kenya Universities Professional Counsellors Association (KUPCA) In Kenya

1.4. Objectives of the Study

The objective of the study was to investigate the extent to which counsellors' perception influences utilization of modern technology in counseling practice among KUPCA Members

1.5. Research Hypothesis

(Ho1) There is no significant relationship between counsellors' perception of modern technology and its utilization in counseling practice among KUPCA members

1.6. Justification of the Study

The study was to provide information that advocated on counsellor professional utilization of modern technology in counseling. Aimed at improving counseling delivery in Kenyan Institutions of learning where counselling services are provided, designed a curriculum that is inclusive of technological components, which enhances improvement on training and provision of professional counseling services in Kenya.

1.7. Significance of the Study

The study findings were expected to improve counseling delivery in Kenyan Institutions of learning where counselling services are provided, and designing a curriculum that is inclusive of technological components, which was aimed at enhancing improvement on training and provision of professional counseling services in Kenya, which leads to achieving millennium development goal on innovation especially in the counseling practice.

1.8. Assumptions of the Study

This study was based on the following assumptions:

- Professional counsellors had negative attitude towards utilizing of modern technology in counseling practice.
- That the Professional counsellors were sincere and genuine enough in responding to the items in the questionnaires.

1.9. Scope of the Study

The study was conducted among KUPCA members in all Kenyan Universities. It focused on investigating selected factors influencing utilization of modern technology in counselling among KUPCA members in both private and public Universities in Kenya.

1.10. Limitation of the Study

The study was likely to encounter a number of limitations such as;

- The Counsellors to be involved in the study is a small fraction of the total number of the counsellors in the counseling practice in Kenya and may not be an ideal representation of all the practicing counsellor.
- In view of the above stated, generalization and application of the findings may be done with caution

2. Methodology

2.1. Introduction

This chapter presents a description of the research design, population of the study, sample and sampling method, research instruments to be used and the data collection procedures are described. A data organization and analysis procedure were also done.

2.2. Research Design

The researcher used descriptive research design which was aimed at investigating the extent to which counsellors' perception influences utilization of modern technology in counseling practice among KUPCA Members. Descriptive research is a systematic collection and analysis of data in order to answer questions or test hypothesis (Orodho, 2009). This is because, despite counselors' knowledge on importance of technology in their day to day work, little has been done to investigate the impact of technology in counseling.

2.3. Location of the Study

The study was carried out among professional counsellors' in all the Universities in Kenya both private and public who are directly involved in counseling practice on daily basis and are members of KUPCA.

2.4. Target Population of the Study

The target population of this study was comprising of one hundred 120 (one hundred and twenty) registered KUPCA members in all the Kenyan Universities both public and private in Kenya.

2.5. Sampling Procedure and Sample Size

The researcher used the entire 120 (one hundred and twenty) KUPCA population as the sample size. This is because the number was not too large to handle. However not all the counsellors responded to the questionnaire. Total population sampling is a type of purposive sampling technique that involves examining the entire population that has a particular set of characteristics such as experience, knowledge and skills.

2.6. Instrumentation

Data pertaining to this research was collected using online questionnaire. The questionnaire consisted of open, closed, contingency and matrix questions which had various items seeking information relevant to the study. A questionnaire was to allow several participants to respond. The use of questionnaires helped reduce interviewer bias and give respondents enough time to give a well thought out answer.

The researcher also used interview schedule with semi structured questions (open questions) whose purpose was to obtain detailed information about personal feelings, perceptions and opinions on research topic. This was done by identifying the respondents and requesting them to answer the questions in person or by telephone. The interview schedule provided the necessary qualitative data. Questions were asked on face to face and one on one basis, in order to stimulate discussions as well allowing participants to give their own and more independent views and suggestions.

2.7. Validity and Reliability of instruments

2.7.1. Validity

Validity refers to the extent to which an assessment measures what is purported to measure (Privitera, 2014). Validity of the instrument was based on content validity which is also known as logical validity which refers to the extent to which a measure represents all facets of a given construct. The instruments in this study was validated and reviewed by the supervisors and other experts in the department of Theology, Religious Studies and Counseling.

2.7.2. Reliability

Reliability refers to the consistency or precision of a measurement when repeated under similar circumstances (Privitera, 2014). A pilot study was conducted before the actual field study to ascertain the reliability of the instruments. The pilot study was conducted from selected University Counsellors in Nakuru County. Pilot study data was useful in determining the reliability and improving validity of the instruments and in the adjustment of the questionnaires where

necessary. A pretest of the questionnaire or interview schedule was to reveal ambiguities, poorly worded questions, questions that were not understood and unclear choices.

It was also aimed at indicating whether the instructions were clear or need an alteration. Cronbach's coefficient alpha method was used to determine internal consistency of the items. A reliability coefficient of 0.7 or above was sufficient to reflect the internal reliability of the instrument (Orodho, 2009).

2.8. Data Collection Procedures

The researcher sought research permit from National Council for Science, Technology and Innovation (NACOSTI) through Kenya Methodist University Scientific and Ethical Review Board. Since this permission was not enough to enable the researcher carry out the research, the researcher also sought permission from KUPCA Chairperson to KUPCA members notifying them about the research. The researcher took the initiative of communicating to the respondents with explanation as to the purpose of the research while following up date for an interview.

2.9. Data Analysis and Presentation

Data collected was processed, presented in both qualitative and quantitative methods. Qualitative data was analyzed by use of computer programme - Statistical Package for Social Sciences (SPSS) version 22.0 and presented by use of percentages and by use of inferential statistics. Quantitative data was analyzed presented thematically in line with the objective and presented in verbatim

2.10. Ethical Considerations

Research ethics refers to the ethical standards that researchers must follow when conducting research on human subjects (Meece, 2002). The study was ethical in data collection, analysis and reporting. Information obtained, remained confidential. The respondent who participated in interview schedule used pseudo names to conceal their identity. This was highlighted and explanation given where possible. All respondents were treated with utmost dignity and respect and participation in the study was voluntary of which the researcher was informed the respondents the information was only be used for research purpose.

The researcher sought research permit from National Council for Science, Technology and Innovation (NACOSTI) through Kenya Methodist University Scientific and Ethical Review Board

3. Results and Discussions

3.1. Introduction

This chapter presents the study findings and discussions.

3.2. Demographic Findings

The research had a high response rate with 97 respondents participating. The researcher had used the entire 120 (one hundred and twenty) KUPCA population as the sample size. The first step in the analysis was the review of the respondent's demographic variables. The main areas of interest in the demographic characteristics of the respondents were years of service, gender, age, and academic qualification of the respondents.

3.2.1. Gender of the Respondents

From the findings, unlike in most of the other professions in Kenya, women counselors seem to dominate this profession, as per the study respondents, 60(61.9) women counsellors, whereas male counselors were, 37(38.1%).

3.2.2. Age of the Respondents

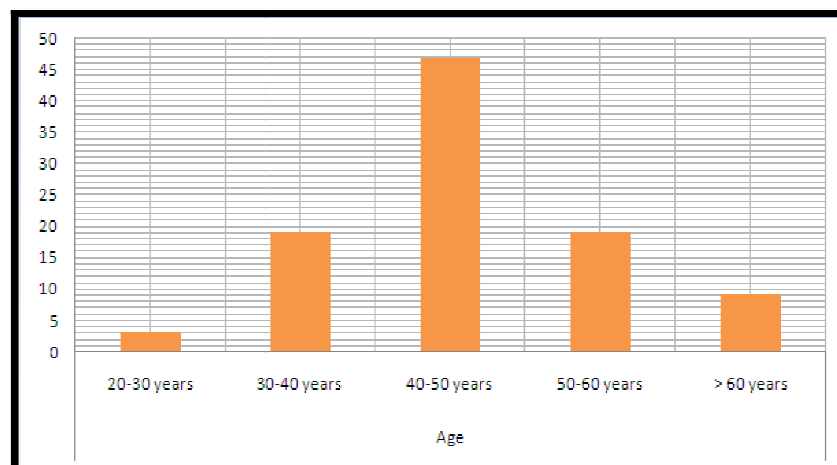


Figure 1: Counselor's Age Bracket

Age of the respondent was a determining factor of the authenticity of the respondent's feedback. The findings revealed that majority, 47(48.5%) of the respondents were aged 40-50 years while the fewest, 3(3.1%) were aged 20-30 years. Although the respondents understand and appreciate the benefits of embracing modern technology in counselling, the profession still lacks young people to spearhead and come up with new ideas on utilization of modern technology in counselling. This is because the majority of the counsellors are in the late adulthood may be not have seen the need for studying an additional course that will enable utilization of modern technology in counselling, and more so they are more comfortable with traditional face to face method of offering counselling. From the questionnaire, many counsellors had gone through counseling and psychology course only and very few had undertaken any additional course related to modern technology.

3.2.3. Academic Qualification of the Respondents

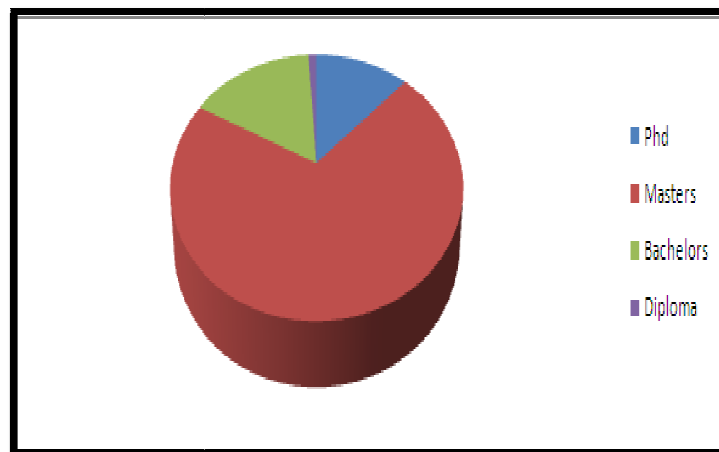


Figure 2: Counsellors Academic Qualification

The findings also revealed that 69(71.1%) of the respondents were master's holders followed by 16(16.3%) who are degree holders, 12(12.4%) who are PhD holders, and finally 1(1.0%) who was a diploma holder. The high number of master's holders is due to the fact that most university counsellors are required to be master's holders and advancement of their profession has led to increase in the number of PhD holders in the profession. The high level of education means that counsellors are more competent and have the experience, knowledge and skills needed and more importantly, they are informed on the impact of modern technology in the world and the fact that every profession is now embracing modern technology and counselling profession is not an exception.

3.2.4. Respondents Duration of Experience

On counsellors years of service, it emerged that majority, 53(54.6%) of the counselors had 6-10 years of service. Those who had 1-5 years were only 19(19.6%) while those who had a slightly more experience of 11-15 years and above 16 years were 15(15.5%) and 10(10.3%) respectively. This duration showed that respondents were competent enough and specialized in their profession since they had enough experience, knowledge and skills to share sufficient information on their area of interest.

3.3. Counsellors Perception and Utilization of Modern Technology

The study sought to determine the extent to which counselors' perception influences utilization of modern technology in counseling practice. In order to achieve this, the study sought views on the perception of counselors. A five-point Likert scale was used to measure the responses, with 1 indicating weak or negative perception and 5 indicating positive perception towards modern technology.

These views on a mean scale were then correlated with the utilization of modern technology.

3.3.1. Counselors Perception of Modern Technology

The findings on the counselor's perceptions on modern technology were as presented in Table 1.

Counsellors Perception on Modern Technology	Mean	Std. Deviation
Modern technology has relevance in counselling	3.35	1.066
Use of modern Technology in counselling increase client confidence	2.77	1.322
Use of modern technology in counselling leads to breaching any counselling ethical code	4.19	1.128
Counsellor perception/attitude/resistance on modern technology in counselling influences its utilization in counselling practice	4.61	.490
Modern technological skills are important to professional counsellor's	4.43	.703
Technological skills and knowledge should be included in counselling curriculum	4.81	.397
Learning counsellor's education programmes should include training on use of modern technology in counselling	4.28	.757
Use of modern technology in counselling will increase efficiency and competency in the counselling profession	4.32	.683
Integration and utilization of modern technology in counselling will make the Counselling practice a competitive profession	4.46	.661
Technological skills/knowledge are important in accomplishing various counselling tasks	4.08	1.032
A lack of incorporating modern technology in counselling services in our institutions of learning makes it difficult for counselling innovation	3.17	.985
Kenyan Counselling Act has provision on the use of Modern technology in counselling	4.26	.631

Table 1: Counselors Perceptions on Modern Technology

The finding shows that counselors had a positive perception on the use of modern Technology. For instance, the leading aspects perceived positively by counselors included: Inclusion of technological skills and knowledge in counseling curriculum (mean=4.81, std=.397); whether counselor perception/attitude/resistance on modern technology in counseling influences its utilization in counseling practice (mean=4.61, std=.490); whether integration and utilization of modern technology in counseling will make the counseling practice a competitive profession (mean=4.46, std=.661) and finally the fact that Kenyan Counselling Act has provision on the use of Modern technology in counselling (mean=4.26, std=.631). However, counselors had a different perception on the statement the hypothesis that use of modern technology in counseling increase client confidence as indicated by a mean and standard deviation (mean=2.77, std=1.32). It can therefore be generalized that counselors had a positive perception on the use of modern technology.

These findings agree with previous studies which stated an improved technology in counseling application by counseling professionals steadily increased due to a positive perception. As theory of planned behaviour predicts an individual intention to engage in behaviour at specific time and place is determined by a person perception of the social environmental factors surrounding the behaviour (Rebecca et al., 2012). With improved technology and provision of resources, it enables counsellor change their perception towards utilization of modern technology

3.3.2. Relationship between Counselor Perception and Utilization of Modern Technology Hypothesis Testing

Pearson product moment correlation, which is a measure of strength and magnitude (direction) of linear correlation between two variables, was carried out to determine whether there was a relationship between counselor's perception and utilization of modern technology. The hypothesis of the study stated that "There is no significant relationship between counsellors' perception and its utilization in counseling practice among KUPCA members". The findings were as in table 2.

		Utilization of Modern Technology	Counsellors Perception
utilization of modern technology	Pearson Correlation	1	.522**
	Sig. (2-tailed)		.000
	N	98	98
counsellor's perception	Pearson Correlation	.522**	1
	Sig. (2-tailed)	.000	
	N	98	98

Table 2 Correlation between Counselors Perception and Utilization of Modern Technology

*** Correlation Is Significant at the 0.05 Level*

The findings indicate that there is a positive significant correlation between counselor's perception and utilization of modern technology ($r=.522, p<.05$). This implies that there is a positive association between the two variables such that Counselors perception influences utilization of modern technology in the practice of counseling. Due to positive perception and the view that technology is important in counseling, counsellors resort to utilizing it.

The influence of counselor's perception on utilization of modern technology was sought through regression model using standardized coefficients. Simple linear regression model was established to measure the causal effect of counselor's perception on utilization of modern technology in counseling. In regard to this, utilization of modern technology was regressed against counselor's perception and the model coefficient results presented as shown in Table 3:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.009	.743		-.013	.990
	counsellor's perception	.923	.154	.522	5.990	.000

Table 3: Model Coefficient Results on Effect of Counselor's Perception on Utilization of Modern Technology
a. Dependent Variable: Utilization of Modern Technology

The findings indicate that without modern technology counseling practice would not be effective as shown by a constant non-significant value ($B=-.009$, $p=.990$). However, using the standardized coefficients, the findings show that counselor's perception had an effect on utilization of modern technology ($\beta=.522$, $p<.05$). This implies that a positive orientation of the counselor's perception results in an improvement in the utilization of modern technology.

Similar to these findings, a summary model result for the contribution of counselor's perception on utilization of modern technology was also presented using the R square value. The findings were presented as shown in Table 4:

Model	R	R ²	Adjusted R ²	Std Error	Change Statistics				
					R ² Δ	F Δ	df1	df2	Sig. F Δ
1	.522 ^a	.272	.264	.603	.272	35.8 81	1	96	.000

Table 4: Summary Model on Effect of Counsellors Perception on Utilization of Modern Technology
a. Predictors: (Constant), Counsellors' Perception

The findings in Table 4 show that there was a positive association between counsellors' perception and utilization of modern technology ($R=.522$). When this value is squared, the proportion of variation in the utilization of modern technology was found ($R\text{ square}=.272$) which is also the coefficient of determination. This value when multiplied by 100% results to 27.2% implying that counselor's perception on modern technology accounts for 27.2% change in utilization of modern technology. This implies that counselor's perception positively influences utilization of modern technology to a moderate extent. The findings contradict those of a study by (Canabis, 2001) which revealed Counselors' resistance, negative attitude, and perception on modern technology has effect on modern technology in therapeutic relationship and on confidentiality of client information and dehumanization of therapeutic process which makes it difficult for counselors to fully embrace modern technology.

Social Cognitive Career Theory Lent, Brown and Gail (1994) states that career interests are regulated by self-efficacy and an outcome expectation, which means people, will form lasting interests in activities when they experience personal competency and positive outcomes. On the contrary, a belief of low personal competency will lead people to avoid activities. This is evident from the findings that counselor's perception positively influences utilization of modern technology to a moderate extent by 27.2%.

Counsellors positive perception can be attributed to the fact that modern technology is here to stay. The various positive outcomes of modern technology in counseling have enabled the counsellor to drop the 'wait and see' attitude towards utilization of modern technology in counseling. The theory of planned behaviour attitude refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior of interest.

It entails a consideration of the outcomes of performing the behavior (Ajzen, 1985). Although the previous researcher (s) had believed counsellors have negative attitude towards utilization of modern technology the research findings indicate the opposite. The findings revealed that counselor had a strong intention of utilizing modern technology in counseling hence the positive perception.

4. References

- i. ACA (2005), American Counselling Association Codes of Ethics
- ii. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*.
- iii. Abney, P. C. & Maddux, C. D. (2008) Counseling and Technology: Some Thoughts About the Controversy, *Journal of Technology in Human Services* 22:3, 1-24, DOI: 10.1300/J017v22n03_01
- iv. Bandura, A. (2009). *Social Cognitive Theory of Mass Communication*. In J. Bryant & M Oliver (Eds.), *Media effects* 3rd edition (pp.94-124). New York: Routledge.
- v. Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall
- vi. Bandura, A. (1997). *Self-EFFICACY: The Exercise of Control*. New York: Freeman
- vii. Bond, T. (2009). *Standards and Ethics for Counselling in Action* (3rd edition). London: Sage.

- viii. Bowman, R. and Bowman, V. (1998). Life on the electronic frontier: The application of technology to group work, *Journal for Specialists in Group Work*, 23 (4), 428-445.
- ix. Borg, R.W. and Gall, M.D. (1989). *Educational Research; An Introduction*. Longman Inc, New York
- x. Cabaniss K. (2001) *Counselling and Computer Technology in the new millennium – An Internet Dephi Study: Virginia*
- xi. Campbell, M, J. (2005) *Essentials of Clinical Supervision*. Sage Publications Texas
- xii. Casey, J.A (1992) *Counselling using technology with at risk youth (Report no: EDO-CG-92-14) Michigan*. Eric Document Reproductive Service No ED 346 082
- xiii. Corey, G. (2005). *Theory and practice of counseling and psychology*. California: Brooks/Cole
- xiv. Davis, L., Ajzen, I., Saunders, J. & Wasiams, T. (2002). *The Decision of African American Students to Complete High School: An Application of the Theory of Planned Behavior*.
- xv. Fuster, J.M. (2003). *Personal Counselling*. Mumbai: St Paul's Publication
- xvi. Gary, S. Belkin, (1994) *Introduction to Counselling*. 2nd Edition, W.M.C. Brown Publishers Long Island University
- xvii. Hayden, I, Poynton, T.A & Sabella R, A (2001). School c s as counsellors' use of technology within the ASCA national model's delivery system. *Journal of technology in counselling*. (5), p.1 retrieved from http://jtc.coltate.edu/Vol5_1/Hayden.htm
- xxviii. Kaplan, D. (2006) *Ethical use of technology in counseling, counselling today: ACA*
- xix. Kombo, K.D, Tromp, A. L.D (2006) *Thesis and Thesis Writing; An Introduction*. Nairobi: Paulines Publication Africa
- xx. Lent, R.W. Brown, S.D. and Hackett, G (2000) "Contextual Supporters and Barriers to Career Choice; A Social Cognitive Analysis." *Journal of Counseling Psychology* 47:36-49
- xxi. Lent, R.W. Brown, S.D. and Hackett, G (1994) "Towards a Unifying Social Cognitive Theory of Career and Academic Interest. Choice and Performance" *Journal of Vocational Behavior* 45:79-122
- xxii. Privitera, G.J. (2014). *Research Methods for the Behavioural Sciences*. Washington: St.
- xxiii. Bonaventure University.
- xxiv. Makela, J. P. (2009). *A case study approach to ethics in career development*. Broken Arrow, 11 OK: National Career Development Association.
- xxv. Matzen, N.J. & Edmunds, J.A (2007). *Technology as a catalyst for change: The role of professional development*. *Journal of Research on Technology in Education*, 39(4), 417-430
- xxvi. Meece, J.L. (2002). *Child and Adolescent Development for Educators (2nd ed.)*. New York: McGraw-Hill Companies.
- xxvii. Moussa, Sami Zaki (2002). "Technology Transfer for Agriculture Growth in Africa," Abidjan: African Development Bank, OECD, AfDB and UNECA (2009).
- xxviii. Mugenda, O, M. & Mugenda G.D. (2003). *Research Methods: Qualitative and Quantitative Approach*. Nairobi: Acts Press.
- xxix. Orodho, J.A. (2009). *Elements of Education & Social Research Methods. (2nd edition)*. Maseno: Kanenzja Publisher.
- xxx. Owen, D. W (1999) *Computer Utilization by school counsellors*. *Professional school counselling*. 2. 179-183
- xxxi. Rebecca, C. Ginsburg, H. Westhoff, M. Mende, R. (2012) *Ajzen's Theory of Planned Behavior and Social Media Use by College Students*. *American Journal of Psychological Research*
- xxxii. Republic of Kenya (2001b). *Report of the taskforce on students practice and unrest in secondary schools*. Nairobi: Government Printer
- xxxiii. Sabella, R.A (2003) *School counsellors and computers: Specific timesaving tips*. *Elementary school guidance and counselling*, 31, 83-96.
- xxxiv. Sampson, J.P, Kolodinsky W, R. Greeno, P.B. (1997) *Counselling on the information highway future possibilities and potential problems*. *Journal Volume 75 Issue 3 pages 202-212*