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ETHICAL ISSUES IN CLINICAL PSYCHOLOGY RESEARCH IN NIGERIA AND COPING TECHNIQUES

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ABSTRACT: *There continue to be gaps in existing knowledge regarding evidence-based ethical challenges and ways of coping among clinical psychologist involved in research. A 17-item scale for assessing Ethical Challenges in Clinical Psychology Research Scale (ECCPRS) was developed; and ethical issues faced by clinical psychologists in conducting research as well as ways of coping was investigated. The cross-sectional survey included 45 male and 39 females, using purposive and convenience sampling. The ECCPRS (α=.89) and Ways of Coping Questionnaire (α=.61) was used for data collection. Descriptive and inferential statistics were employed in analysis. Factor analysis showed that the scale had good sampling adequacy with a significant sphericity, with the single factor accounting for 40.5% of the variations. Confidentiality and informed consent issues were the most frequently reported ethical challenges. Planful problem-solving ranked highest while escape-avoidance ranked lowest. The ECCPRS is useful for assessing ethical issues encountered in conducting research.*

KEYWORDS: Ethical Challenges, Ethical Challenges In Research Scale, Coping Techniques, Clinical Psychologists, Nigeria

INTRODUCTION

Clinical psychology focuses on the integration of science, theory and clinical knowledge for the purpose of understanding, preventing, and relieving psychologically based distress or dysfunction and to promote subjective well-being and personal development (Plante, 2005). This branch of psychology is concerned with the provision of professional services for the diagnosis, assessment, evaluation, treatment and prevention of psychological, emotional, psychophysiological and behavioral disorders across the lifespan (American Psychological Association [APA], 2002).

As mental health professionals, clinical psychologists have core care and research functions (Routledge, 2015). In spite of evidences in the literature highlighting ethical issues in clinical psychology (Jones, 2003; Routledge, 2015), there are still gaps in the area of ethical issues in clinical psychologists' involvement in independent and collaborative research. Besides, little is known about the techniques by which clinical psychologists in developing countries cope with these challenges.

Similar to other clinical sciences, the profession of psychology and specifically clinical psychology specialization base its practice on scientific evidence (APA, 2016, APA, 2017). Psychology believes in cause and effect relationship, utilizes observation, experimentation, and other scientific methods for its study (Adejumo, 2017; APA, 2017); the need for scientific research in the discipline can therefore not be over-emphasised (Kraut, et al, 2004). Rosenthal and Rosnow (1984) also talk about the potential costs of failing to carry out research in professional practice. Like in many health professions, there are historical accounts of unethical research conducted by psychologists. This includes the Watson and

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Rayner's (1920) experiment with "Little Albert" where the infant's fear of furry things continued post-experimentally (Harris, 1979). Similarly, at the end of the 1939 Wendell Johnson's research on cause of stuttering, those who received negative treatment developed many self-esteem problems that stutterers often show (Tudor, 1939).

LITERATURE/THEORETICAL UNDERPINNING

There are reports of ethical challenges by members of other clinical and mental health professions in the conduct of scientific research. In recent years, reports of ethical misconduct surrounding biomedical research in both industrialized and resource-poor countries have resulted in ongoing debates among professionals, policy-makers and the public over a range of issues such as appropriate standards of care, use of placebos in clinical trials, and obligations to study participants and their communities (Angell, 2000; Macklin, 2001; Shapiro & Meslin, 2001; Varmus & Satcher, 2001). Challenges associated with informed consent to research conducted in diverse settings throughout the world have also been noted (National Bioethics Advisory Commission, 2001).

There continue to be gaps in existing knowledge regarding evidence based ethical issues and adherence to national and international ethical guidelines for research with study populations and communities in resource-poor settings (Marshall, 2017). Arguably, research in the area of clinical psychology brings with it many advantages for the researcher but may have inherent corresponding challenges. This may explain why Bhola, et al (2015) affirm that ethical dilemmas are inevitable during psychotherapeutic interactions. For example, the British Psychological Society ([BPS], 2007) observes that in conducting internet-based psychological research, large number of participants, from a range of backgrounds is set against problems of verification of their identity and control over research conditions and privacy. Further, issues such as protecting potentially vulnerable participants from inappropriate or distressing procedures, and ensuring that they are able to give properly informed consent and that their confidentiality is maintained are all of relevance to making psychological research ethical. These complexities and challenges may be magnified when a psychologist needs to function as therapist and researcher.

Psychotherapeutic interventions as well as conducting independent and collaborative research in the domain of psychology could be laden with ethical issues. As observed by McLeod (2015), these include; informed consent, debrief, deception, participant protection, confidentiality and participant's withdrawal from therapy and research. Adejumo (2016) also identified competence, disclosure and truth-telling among others. There are circumstances where clinical psychologists compare differentials in the effectiveness of a variety of investigative patient-oriented psychotherapeutic interventions. The use of placebos during such trials (Millum & Grady, 2013; Weijer, 2002) and protection of participants' identity during analysis and presentation of research findings have often been debated (Jain, 2010; Marco & Larkin, 2000).

Research in clinical psychology and interventions may require baseline interview; during which the patient may disclose very confidential information which could expose the research participant or family to legal, social or psychological risk (Fulda & Lykens, 2006; Hurst, 2008) if not handled with adequate ethical considerations. But so far, there is no clear

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evidence concerning whether these challenges are reported by clinical psychologists involved in conducting research in Nigeria.

The training and practice of professionals in the field of mental health (like many other professions) not only require practitioners to be conscious of potential ethical issues in conducting research, but that professionals should possess skills to cope with such challenges (Adejumo, 2016; Ogundiran, 2004). As observed by Hunink, et al, (2009) and Sorta-Bilajac et al, (2008), there is little information on how health care professionals actually deal with ethical challenges. It is important to investigate whether clinical psychologists adopt efficient techniques in coping with research-related ethical challenges. The present day psychologists might have been ill-prepared to perceive and cope with contemporary ethical issues in psychological research. An extant literature in this area is that of Welfel, (1992), where he examined the literature in the area of ethics in the education of psychologists over a thirty-five years period. His findings reveal several gaps in the ethics competencies of psychology students.

According to Weiten and Lloyd (2008), coping means to invest own conscious effort, to solve personal and interpersonal problems, in order to try to master, minimize or tolerate stress and conflict. The Ways of Coping Questionnaire (WCQ) has been a widely used measure of coping processes for the last three decades (Lundqvist & Ahlstrom, 2006; Rexrode, Petersen & Toole, 2008).The questionnaire was designed to identify the thoughts and actions that individuals use to cope with stress and to discern patterns of coping within specific contexts (Edwards & O'Neill, 1998; Folkman et al, 1986), cultural, occupational, and clinical populations. Positive thinking and problem focused responses in the face of stressors are normally referred to as adaptive coping strategies; negative thinking and avoidance responses are referred to as maladaptive coping strategies (Nowack, 1990).

It is found in many studies that avoidance coping predicts higher levels of psychological distress (Blalock & Joiner, 2000; Carver et al., 1993; Terry & Hynes, 1998). Emotion-focused coping is more complex as it has been associated with both increased and decreased levels of psychological distress (Preacher, Rucker and Hayes, 2007). Crockett et al (2007) revealed strong positive associations between avoidant coping and psychological distress. Padyab (2009) in an Iranian study found that sex, age group, education and marital status were not really a source of difference in terms of coping behaviors. Additionally, positive reappraisal is being used among Iranians, i.e., they use this coping behavior in 15.9% occasions which is the highest percentage among other strategies.

Ethical lapses in research can significantly harm human and animal subjects, students, and the public. For example, a researcher who fabricates data in a clinical trial may harm or even kill patients (Resnick, 2015), and a researcher who fails to abide by guidelines relating to handling of experimental animals may jeopardize his health and safety, and that of the research team. According to the "stressful" or "imperfect" environment theory, misconduct occurs because various institutional pressures, incentives, and constraints encourage people to commit misconduct, such as pressures to publish or obtain grants, career ambitions, the pursuit of fame, poor supervision of trainees, and poor oversight of researchers (Shamoo & Resnik, 2015).

It should therefore not come as surprise that many different professional associations (e.g. APA, 2002; the Health and Care Professions Council (HCPC), (HCPC, 2012a) and the British Psychological Society's (BPS) code of ethics and conduct (BPS, 2009), universities,

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and government agencies such as the National Health Research Ethics Committee in Nigeria (Malomo, et al, 2008) have adopted specific codes and policies relating to research ethics. Although very important and useful, codes do not cover every situation, they often conflict, and require considerable interpretation. It is therefore important for researchers to learn how to interpret, assess, and apply various research rules to facilitate ethically sound decision making in care and research situations. The present study therefore attempts to investigate ethical issues encountered by clinical psychologists in independent and collaborative research and techniques of coping. Specifically, the focus of this study is to:

1. Develop a scale for assessing ethical issues encountered in conducting clinical psychology research i.e. Ethical Challenges in Clinical Psychology Research Scale (ECCPRS)

2. Explore whether mean differences exists in ways of coping in gender, age and professional experience

3. Investigate the relationship between ethical challenges and ways of coping

METHODOLOGY

This study adopted a cross sectional design. The venue of the 2016 Annual National Clinical Psychologists' workshop in Osogbo provided the setting. The historic city, which is the capital for Osun state, Nigeria, is on the Kano-Lagos, Nigeria rail line. Clinical psychology units in Neuro-Psychiatric establishments in Lagos, Abeokuta, Benin-City, and Makurdi, Nigeria also served as additional settings for the study.

A combination of purposive and convenience sampling was employed. The purposive sampling deliberately focused on clinical psychologists, using some eligibility criteria which include;

i. Possession of a Masters degree in clinical psychology obtained from any recognized local or foreign university

ii. Previous experience of participation in any independent or collaborative research involving human beings or experimental animals

iii. Willingness to participate in the study after an informed consent process.

To select the participants, convenience sampling was adopted, leading to inclusion of 84 clinical psychologists.

Participants: They were made up of 45 (53.6%) male and 39 (46.4%) females with their ages ranging between 26 and 63 years (N=84, $\overline{X}$ = 36.95 ±6.21). Their professional experience ranged between 1 and 21 years with an average of 4.28±3.75 years. Of these, 82 (97.6%) were Christians while 2 (2.4%) were Muslims; 52 (61.9%) were married while 32 (38.1%) were single. Sixty three (75%) have had training in research ethics while 21 (25%) never did. Only 23 (27.4%) have been professionally certified in research ethics. Forty-two 42.9%, 47.6% and 9.5% rated themselves good, average and poor respectively on knowledge of Nigerian Association of Clinical Psychologists' (NACP) ethical guidelines. In terms of knowledge of international research ethics guidelines, 38.1%, 50%, and 11.9% rated themselves as good, average, and poor respectively. All the participants are Nigerians.

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Instruments:

The research instrument contained a 96-item self-report questionnaire divided into 3 sections.

The 13-item Section A of the questionnaire tapped information on the respondents' demographic characteristics such as; gender, religion, educational qualification, training and certification in research ethics, whether they encounter ethical issues in clinical research, etc.

Section B of the questionnaire contained the 17-item Ethical Challenges in Clinical Psychology Research Scale (ECCPRS). To develop the ECCPRS for this study, 12 clinical psychologists were given paper slips to indicate ethical issues they personally encounter in conducting research as clinical psychologists. Related items obtained from top 10 ethics challenges facing the public (Breslin, et al, 2005) were also considered. These yielded a pool of 25 items which were given to experts in the field for content validity. Eight of the items were deleted entirely or re-framed by the reviewers based on their experience and expertise in the area. The 17 items remaining were designed to explore whether respondents have experienced the challenges while participating in independent or collaborative research. Sample items include; "Handling of issues related to deception in research" and "Balancing religious values with standards of ethical research". Responses were arranged in a Likert form ranging between "Absolutely Untrue= 1" to "Absolutely True=7". Possible overall scores range between 17 and 119. Higher scores indicate high exposure to ethical challenges in research. The items were included in the research instrument for reliability testing, factorisation, and establishment of norms. A Cronbach alpha of .89 and mean of $\overline{X}$ =88.34 ±18.07 were obtained. Further detail about this is presented in Fig. 1 and Table 1.

The 66-item Section C contained the Ways of Coping Questionnaire developed by Folkman and Lazarus (1988) to measure coping processes, i.e. what an individual thinks and does within the context of a specific encounter and how these thoughts and actions differ as the encounter unfolds.

It has 8 sub-scales with responses in a 4-point Likert form indicating the frequency with which they use each strategy (i.e. 0=does not apply and/or not used, 1=used somewhat, 2=used quite a bit, 3=used a great deal). Raw scores describe the coping effort for each of the 8 ways/types of coping. High raw scores indicate that the person often used the behaviours described by that scale in coping with stressful event (Folkman & Lazarus, 1988; Padyab, 2009), i.e. ethical challenges encountered in conducting research. The scale was re-validated during the study with results from the 8 sub-scales revealing the following: Confrontive Coping α= .67; $\overline{X}$ = 10.16±3.60; Distancing Coping α= .51; $\overline{X}$ = 12.11±2.85; Self Control α= .47; $\overline{X}$ = 12.75±2.72; Seeking Social Support α= .56; $\overline{X}$ = 14.94±3.53; Accepting Responsibility α= .50; $\overline{X}$ = 12.12±3.15; Escape Avoidance α= .77; $\overline{X}$ = 7.68±4.29; Planful problem Solving α= .66; $\overline{X}$ = 15.73±4.34; and Positive Reappraisal α= .72; $\overline{X}$ = 14.47±3.57.

Data Collection Procedure: The researchers obtained ethical permission to conduct the study. Two research assistants were recruited and trained accordingly. The risks, benefits and process of the research were discussed with each potential eligible participant. Most participants observed that the study is of minimal psychological or physical harm (if any at all) after which their informed consent was obtained.

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Based on convenience sampling, potential participants were approached during an annual clinical psychologists' workshop. A copy of the research questionnaire was given to each consenting participant. Some other clinical psychologists were similarly approached in four other clinical psychology units as mentioned earlier with the help of the research assistants, to cover the northern and southern strata of Nigeria. At each point, the participants were allowed to read the questionnaire and respond accordingly. This took an average of 25 minutes. Others chose to have longer time to read through, and returned the survey questionnaire between 2 and 4 days later. A total of 102 questionnaires were given out in the five locations with only 84 correctly and completely filled, yielding a response rate of 82%. Completed questionnaires were sorted, coded, and entered into the Statistical Package for Social Sciences for data analysis.

Data analysis: Analysis of the data included descriptive statistics such as percentages, mean and standard deviation, as well as inferential statistics such as correlation, principal component, and factor analysis for validating the ECCPRS at $p<0.05$.

RESULTS

1. Development of the Ethical Challenges in Clinical Psychology Research Scale (ECCPRS)

Description: The scale comprises 17 items rated on a 7-point scale ranging from 1 to 7 for measuring ethical challenges.

*Test of Reliability***:** In order to establish the reliability of all items, item total analysis was used and the .889 Cronbach's alpha coefficient was obtained. No item was excluded.

*Test of Validity***:** In order to validate the number of factors in the 17 items, factor analysis was used. From the result of the factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy showed that the scale had good sampling adequacy with a significant sphericity [KMO = .848, χ^2 (136) = 713.437, $p < .001$]. This implies that the scale can be factorized. To achieve this, the Principal Component Analysis (PCA) method was used and the result shows that a single broad factor was extracted on the basis of eigenvalues (factor variance) greater than 1. The single factor accounted for 40.5% of the total variations of the scale. This is shown in the scree plot as follows:

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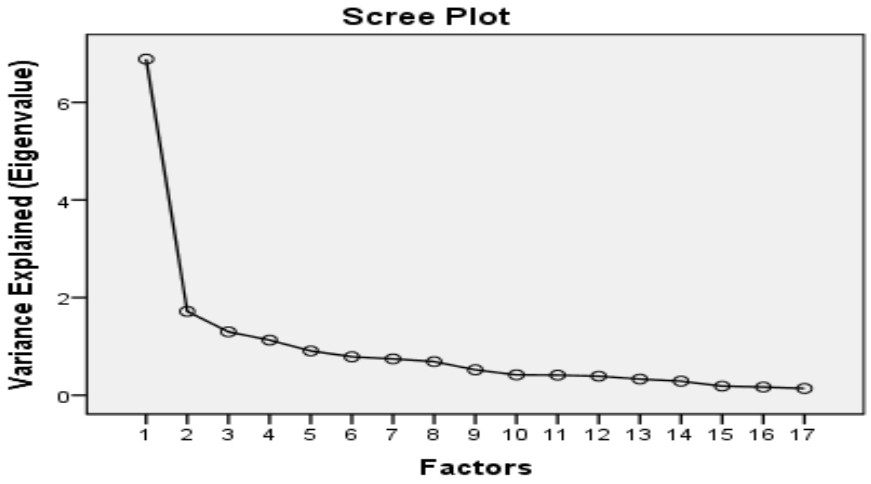
Figure 1: Scree plot showing factor analysis of the ECCPRS



The scree plot shows the adequacy of the first factor extracted in explaining the most part of the scale's total variance. Other factors have relatively negligible contributions to the totality of the scale.

Furthermore, item membership of the first four factors was determined based on where each item has the highest loading (an item should have variance loading < 0.4) for it to be retained in the scale. The result is presented in Table 1 below:

Table 1: Showing Factor Loading for ECRS Scale

	Factors Extraction			
Items	1	2	3	4
11	.813	.078	-.185	-.031
9	.796	-.013	.336	-.057
5	.753	.040	.069	-.314
6	.741	.026	.051	-.022
17	.727	-.130	-.198	.080
1	.721	-.080	-.333	.054
16	.717	-.408	.302	-.055
13	.717	-.360	.350	-.066
10	.705	.043	-.290	-.048
14	.677	-.378	.197	.129
4	.588	.502	-.090	-.245
3	.547	.523	-.126	-.251
12	.508	.079	.160	.307
8	.324	.630	.402	-.051
2	.533	-.178	-.658	.156
15	.348	.016	.099	.633
7	.166	.534	.047	.587

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From the result in Table 1, items 1 – 6, and 9 – 17 loaded significantly on factor 1 whereas 7 and 8 loaded on the second factor. Based on the relatively little contribution of the second factor, items 7 and 8 are better moved to the first factor to make a single-factor scale. Factors 3 and 4 have no meaningful contribution, hence not considered an independent factor.

2. What are the ethical issues in research reported by clinical psychologists?

Fig.2: Showing identified ethical challenges in research and frequency

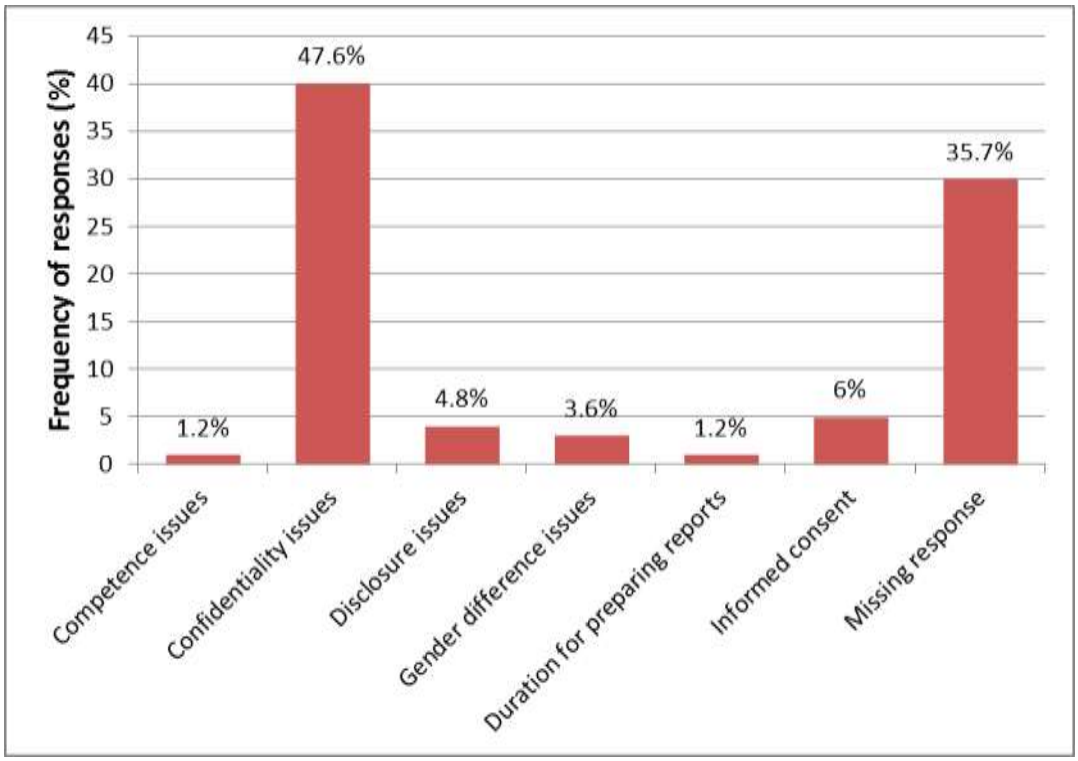

Fig. 2 Shows confidentiality was the most frequently encountered (47.6%) ethical issue in research. However, 35.7% did not clearly mention the ethical issues they face when conducting research.

3. Are there mean differences in ways of coping in gender, age and professional experience?

Table 2: Showing mean difference in ways of coping in gender, age and professional experience?

Gender groups	**Male**		**Female**				
Ways of Coping	**Mean**	**Std. D**	**Mean**	**Std. D**	**T**	**df**	**P**
Confrontive	9.86	3.87	10.50	3.29	-.805	82	.423
Distancing	12.27	2.70	11.94	3.04	.534	82	.595
Self-control	12.30	2.69	13.29	2.70	-1.675	82	.098
Seeking social support	15.26	3.86	14.59	3.13	.867	82	.388
Accepting responsibility	12.15	3.20	12.09	3.14	.077	82	.939
Escape avoidance	7.50	4.33	7.90	4.28	-.430	82	.668
Planful problem solving	16.43	4.59	14.93	3.94	1.593	82	.115
Positive reappraisal	14.23	2.94	14.76	4.21	-.676	82	.501

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Age groups	**Young**		**Old**				
	Mean	**Std. D**	**Mean**	**Std. D**	**T**	**df**	**P**
Confrontive	10.06	3.84	10.24	3.45	-.220	82	.836
Distancing	12.05	2.79	12.17	2.92	-.177	82	.860
Self-control	12.93	2.75	12.62	2.72	.534	82	.595
Seeking social support	15.26	4.32	14.71	2.79	.711	82	.479
Accepting responsibility	12.27	2.63	12.01	3.54	.374	82	.710
Escape avoidance	9.41	4.08	6.32	3.98	3.489	82	.001
Planful problem solving	14.24	4.06	16.91	4.23	-2.915	82	.005
Positive reappraisal	13.76	2.70	15.03	3.91	-1.631	82	.107
Professional Experience	**Low**		**High**				
	Mean	**SD**	**Mean**	**SD**	**T**	**df**	**Sig.**
Confrontive	10.89	3.40	9.34	3.99	1.820	74	.073
Distancing	11.75	2.62	12.54	3.10	-1.207	74	.231
Self-control	12.98	2.67	12.87	2.75	.172	74	.864
Seeking social support	14.67	3.02	15.37	4.18	-.837	74	.405
Accepting responsibility	12.25	3.21	11.96	3.23	.391	74	.697
Escape avoidance	8.89	3.99	5.76	3.87	3.463	74	.001
Planful problem solving	14.72	3.94	16.76	4.84	-2.019	74	.047
Positive reappraisal	13.81	3.04	15.35	3.91	-1.907	74	.060

The result also shows that male and female clinical psychologists were not significantly different in ways of coping. It could also be seen that in terms of frequency of ways of coping adopted by participants, planful problem solving ($\overline{X}$ = 15.68±4.26) ranked highest while escape avoidance ($\overline{X}$ =5.93±4.43) ranked lowest.

Concerning age, there is significant difference of escape avoidance [t (82) = 3.48, p < .001], and planful problem-solving [t (82) = 2.92, p = <.005] dimension between young and old participants. Escape avoidance was significantly higher among young participants, planful problem solving coping was significantly higher among old participants. Other dimensions of coping did not show significant differences.

Table 2 shows that clinical psychologists who had low or high professional experience were not significantly different in ways of coping, except in escape avoidance [t (82) = 3.076, p < .01], and planful problem solving skill [t (82) = 2.02, p < .05].

4. What is the relationship between ethical challenges and ways of coping?

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Table 3: Showing Inter-correlation between Ethical Challenges and Ways of Coping

	CC	DI	SC	SS	AR	EA	PS	PR	EC
CC	1								
DI	.452**	1							
SC	.407**	.499**	1						
SS	.391**	.508**	.391**	1					
AR	.484**	.472**	.529**	.624**	1				
EA	.607**	.426**	.311**	.204	.320**	1			
PS	.161	.219*	.473**	.457**	.486**	-.093	1		
PR	.367**	.430**	.494**	.599**	.545**	.143	.597**	1	
EC	.070	.097	.144	.179	.286**	-.025	.262*	.360**	1
$\overline{X}$	7.98	9.25	10.11	11.27	6.32	8.73	11.85	12.93	88.37

Note: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Key: CC=Confrontive Coping; DI= Distancing; SC=Self Control; SS= Seeking Social Support; AR=Accepting Responsibility; EA=Escape Avoidance; PS=Planful Problem Solving; PR=Positive Reappraisal and EC=Ethical Challenges

Table 3 shows that there was a positive relationship between ethical challenges encountered and overall coping [$r = .25$, $p < .05$] which implies that the more ethical challenges the professionals encountered, the more the coping ability scores increased. Additionally, positive relationship was also found between ethical challenges and ways of coping. There was no significant relationship between ethical challenges and some ways of coping such as; confrontive coping, distancing, self-controlling, seeking social support, and escape avoidance.

DISCUSSION

This study investigated ethical issues encountered by clinical psychologists in independent and collaborative research and ways of coping with the challenges. Efforts were also made to develop a scale (ECCPRS) for assessing ethical issues encountered in conducting clinical psychology research. Additionally, mean differences in ways of coping in gender, age and professional experience were investigated; and the relationship between ethical challenges and ways of coping explored. Evidences from the results show that the 17-item ECCPRS measures ethical challenges encountered by clinical psychologists in conducting research. Confidentiality and informed consent issues were the most frequently reported ethical challenge faced by participants. Male and female clinical psychologists were not significantly different in ways of coping; there is significant mean difference between old and young participants in adoption of escape avoidance and planful problem-solving as ways of coping with research-related ethical challenges. Planful problem solving ranked highest while escape avoidance ranked lowest as the ways of coping reported by the participants.

Considering the results obtained in the process of item generation, expert evaluation, and psychometric evidence about item performance, internal consistency, factor structure, and multiple dimensions of validity of the ECCPRS, it is evident that this result is a unique contribution to knowledge and practice in psychology and other sciences. It is so, just as

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Gidron (2013) observed that scale development is an essential stage in the assessment of constructs and variables in behavior medicine, and in any social and biomedical science. The single factor structure of the ECCPRS makes it easier to administer, score and interprete. The Cronbach alpha of α=.89 attests to the reliability of the scale, while the KMO value of .848 showed that the scale had good sampling adequacy with a significant sphericity. The single factor in this scale also accounted for 40.5% of the total variations of the scale. The scale is therefore reliable and valid for assessing ethical challenges encountered by clinical psychologists in conducting research.

Participants in this study affirm that confidentiality-related issues rank topmost in the list of ethical challenges faced by them. McLeod (2015) as well as Fulda and Lykens (2006) also identified confidentiality as one of the main ethical challenges encountered by psychologists in conducting research, as well as in practice. This study did not only identify confidentiality as a challenge, but ranked it above other possible ethical challenges in conducting research by the participants. Confidentiality pertains to the treatment of information that an individual has disclosed in a relationship of trust and with the expectation that it will not be divulged to others without permission in ways that are inconsistent with the understanding of the original disclosure (Office of Research, 2015). It is therefore a critical issue requiring clinical psychologists' attention.

Issues related to informed consent was also identified as second most-challenging to the participants in this study. Available literature evidences also support this finding (Adejumo, 2016; Marshall, 2017), with the difference being that most evidences in extant literature pertain to informed consent issues in clinical care (e.g. logotherapy) or research, and not necessarily informed consent in clinical psychology research. Considering the definition of informed consent by Council of International Organisations for Medical Sciences (CIOMS), informed consent is critical to meaningful conduct of ethical clinical psychology research. However, the enormity of efforts required to obtain ethically-sound informed consent for research has been highlighted by the CIOMS, where informed consent was identified as entailing a variety of activities and processes including: (i) receiving information necessary to make an informed choice about study participation, (ii) understanding that information, and (iii) making a voluntary decision on whether to participate (CIOMS, 2002). Determining how much detail should be provided and balancing this with the potential participants' need for information and capabilities to understand is a major challenge for researchers and Institutional Review Boards (IRBs) (Rivera, et al. 2007).

The foregoing issues regarding the ethical burden of confidentiality and informed consent have implications for not only psychological research and practice, but the role of ethics committees in handling informed consent and confidentiality issues in clinical care and research in psychology. To the psychologist, during informed consent process, if applicable, subjects must be informed of the precautions that will be taken to protect confidentiality of the data and be informed of the parties who will or may have access (e.g. research team, FDA, OHRP in US based-research; or research team, the Health Research Ethics Committee/National Health Research Ethics Committee and the Nigerian Psychological Association in Nigeria). This will allow subjects to decide about adequacy of the protections and the acceptability of the possible release of private information to interested parties. In the same vein, the IRB/Ethics Committee must decide on a protocol-by-protocol basis whether there are adequate provisions to protect the privacy of subjects and to maintain the

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confidentiality of the identifiable data at each stage of research, including data handling/management and safety considerations.

Besides, in descending order, issues related to disclosure, gender difference, competence, and report writing were also identified as challenging in the conduct of research by participants. It should be noted that about 35% of the respondents declined to disclose specific ethical challenges they encounter in conducting research. This may be as a result of little involvement in research, or perception of release of such information as private; hence their desire choice to withhold disclosure of the ethical issues they face when conducting research. This may be a reason for the observation made by Hunink, et al, (2009) and Sorta-Bilajac et al, (2008), that there is little information on how health care professionals actually deal with ethical challenges.

The result also shows that male and female clinical psychologists were not significantly different in ways of coping. This means that there is no gender difference in the ways of coping adopted by clinical psychologists, despite the plurality, peculiarities and complexities of Nigerian cultures. Sex differences are due to a complex interplay of biological, developmental, and cultural factors. Gender differences have been found in a variety of fields such as mental health, cognitive abilities, personality, and tendency towards aggression. Such variation may be both innate or learned and is often very difficult to distinguish (Fausto-Sterling, 2012; Halpem, 2011; Lippa, 2009). Modern research attempts to distinguish between such differences, and to analyze any inherent ethical concerns. But these have not yielded any significant influence on the ways of coping with ethical challenges as reported by participants in this study.

Planful problem solving ranked highest while escape avoidance ranked lowest as the ways of coping reported by the participants. Further, variation in the age of participants yielded significant difference in adoption of escape avoidance and planful problem solving as ways of coping with ethical challenges in conducting research among clinical psychologists. Young participants reported higher level of escape avoidance, while older participants reported higher level of planful problem solving way of coping. These contradict the findings of Padyab (2009) as earlier reported, and might have been due to obvious situational, racial and cultural differences in the settings. According to Folkman and Lazarus (1988), planful problem solving describes deliberate problem-focused efforts to alter a situation (e.g., “I knew my research population would want me to assure them of greater confidentiality, so I doubled my efforts to assure data safety”) coupled with an analytic approach to solving the problem (e.g., “Came up with a couple of different solutions to the problem” or “I chose a data protection technique from available options, and adhered to it”). Escape avoidance describes wishful thinking (e.g., “Wished that there was no need for extra data safety measure or that another research team member was given that responsibility” and behavioral effort to escape or avoid the problem (e.g., “Tried to make myself think less of the challenge in research by taking anxiolytics, spending more time for clinical care issues, etc.” or ” Slept more than usual”).

CONCLUSION

In conclusion, as the discipline of psychology continues to seek greater relevance in the mental health professions, the need for evidence based practice cannot be neglected

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(Henriques, 2016). The necessity to assign numbers to objects and events based on certain rules, according to Stevens (1946) was the basic idea for developing psychometrics in social sciences. Developing a tool to assess ethical challenges is both innovative and imperative for establishing a scientific measure of ethical challenges encountered in conducting research, from researchers' perspective. Identifying ethical challenges in conducting research is diagnostic, and required for planning remedial and interventional measures as part of efforts to develop research capacity among investigators in developing countries, and globally.

There is a neglected interface between theoretical and regulatory issues in research ethics on one part, as well as the application of knowledge in research ethics to practical issues in professional practices on the other hand. This creates a lacuna, a potential gap between expected gains from research compared with how translational the research is.

In summary and by way of recommendations, it is clear from this study that the ECCPRS is a useful tool for assessing ethical challenges encountered in conducting research among clinical psychologists. It is therefore recommended that the scale be used in revalidation studies in other settings and could be tested for use in the fields of bioethics and mental health research. This study also shows that planful coping is the most frequently adopted way of coping by participants. This brings new knowledge and need for advocacy for the development of skills for planful coping among clinical psychologist. In view of the potential problems associated with adoption of ineffective and maladaptive ways of coping, the results of this study support the view that psychologists require extra skills to maintain confidentiality and skills for ethical handling of informed consent process as tools for conducting independent or collaborative scientific and ethically sound research

Limitations and Implications for Research: This study is not without its limitations. About a third of the respondents did not disclose the ethical challenges they face when conducting research. May be the approach adopted in inducing them to voluntarily disclose this was less effective. Similarly, the use of the 66-item Ways of Coping Questionnaire appear too lengthy for some potential participants. It is suggested that future research in this area should consider more culturally-sensitive and user-friendly criteria for assessing ways of coping. Additionally, our sample was predominantly Christian clinical psychologists, and relatively small. Thus, we do not know how generalizable this might be to people with other religious convictions, and other specialisations in social and clinical sciences. Therefore, our findings are tentative and additional research using larger sample size, broader populations, and other techniques of assessing the variables of interest in the study is suggested.

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