



Effect of Direct Attention Training on Aggressiveness among Healthcare Workers in Kogi State, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This study investigated the impact of direct attention training on aggressiveness of healthcare workers in Kogi State, Nigeria. Quasi-experimental design was adopted for this study. Multi-stage sampling technique was used to select forty-seven male and female health workers in Kogi State. The first stage of the multi-stage sampling process was the selection of two health care services: Prince Abubakar Audu University Teaching Hospital Ayinba and Peace Hospital Ayingba Kogi State. The second stage involved the identification of aggressive health workers using Buss-Perry Aggression Questionnaire (BPAQ). Forty-seven (47) health workers scoring 70 % or higher on the aggression assessment were identified as displaying aggressive behavior. The third stage involved the selection of health care services into experimental group using simple random sampling technique. Prince Abubakar Audu University Teaching Hospital Ayingba which comprised twenty-three (23) participants belonged to Group A and were given Direct attention training while Peace Hospital Ayingba with twenty-four (24) participants belonged to Group B (control group). The control

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group were not given any treatment during the study. Data collected for this study were analysed using descriptive and inferential statistics. The hypothesis was analyzed using analysis of covariance (ANCOVA) statistics at 0.05 level of significance. The results revealed a significant impact of direct attention training on the aggressiveness of both the experimental and control groups among healthcare workers in Kogi State, Nigeria. The health workers in direct attention and control groups had mean scores of 92.07 and 91.02 respectively on aggressiveness. On exposure to treatment, those in the control group had higher posttest mean score of 86.91 than their counterparts in the direct attention group (mean = 50.72, SD = 5.81). Direct attention had significant effect on health workers' aggressiveness in the experimental and control groups ($F_{1, 27} = 208.350$, $P < 0.05$). On the other hand, control group had the higher estimated marginal mean of 87.92 than those in the direct attention group with an adjusted mean score of 51.43. The study suggests that Kogi State should consider employing health psychologists to manage and control aggressive behavior among healthcare workers.

Keywords: Aggressiveness; direct attention; health worker; emotion; training.

1. INTRODUCTION

Aggression is a behavior characterized by verbal or physical actions. According to Anderson [1] "aggression is any behaviour, including verbal events, which involves attacking another person, animal or object with the intent of harming the target. It involves actively doing something unpleasant to someone. Aggressive behaviour may come in many forms, ranging from verbal abuse designed to cause psychological harm to physical violence. Aggression is often displayed in work place and sometimes degenerates into unmitigated displays of violence". Aguglia et al. [2] posited that "workplace violence can have a significant negative impact on subjective well-being and patient care and may contribute to burnout among mental health professionals". On the other hand, Bykov et al. [3] opined that "burnout is an outcome of chronic occupational stress exposure". Pederson and Allen [4] reported that "health workers often want clients to display more aggression in their room – what they actually mean, in psychological terms, is they want to see more assertive behaviours. Assertive behaviours reflect behaviours that are physically vociferous, but do not contravene rules nor do they have the intent to harm, rather they are aimed at imposing influence and dominance". Elson [5] asserted that "although there are many positive aspects to health workers services, the services are also allied with aggressive behaviour defined as the intention to physically, verbally, or physically harm others".

Healthcare services, with its focus on teaching health workers self-discipline and teamwork, instilling confidence, and highlighting their expertise and intelligence is still regularly affected by spontaneous aggressive tendencies [6]. According to Atuze et al [7]. Marox and Ayoth

[8] healthcare services is generally aggregated with values of integration and socialization. At the most basic level of participation, healthcare services promotes the integrated development and maintenance of an individual in working place and enhances the wellbeing of individuals across the nation.

The roles that health workers play in the workplace have evolved, contributing to increased aggression. Matoub and Zeoulah [9] postulated "from a frustration-aggression theory standpoint that it would be acceptable to predict that aggressive acts would be more likely to occur when a staff is not promoted or being stagnated over number of years". "This frustration combined with the close proximity of the work place would serve to heighten emotions and possibly increase the chance of aggressive behaviour occurring" [10]. "Emotions play a key role on how we interact with the material and social world around us having the ability to serve us well or leading us astray" [11]. "On the other hand, emotion regulation refers to our efforts to influence emotions in ways we think will increase the chance that they will be helpful rather than harmful" [11]. Emotion regulation is essential for psychological well-being [12]. Kobylińska and Kusev [13] argued that "the effectiveness of specific emotion regulation strategies depends on the interaction of the features of a situation and personality characteristics of the individual regulating his/her emotions".

Aggression is an emotional response and it requires regulation to forestall consequences that come with it. Gross and Phillip [11] opined that "health workers are more likely to try to regulate an emotion if they believed that doing so will facilitate good response and optimal performance in work place. Health workers

develop beliefs about emotions associated with optimal performance, and these beliefs play a role in emotion regulation in work place. For example, many health workers prefer to feel anxious before an event and will intensify that emotion accordingly". Similarly, Uphill, et al [14] pointed out that "the attainment of positively toned emotions such as happiness may serve as a protective mechanism or buffer, such that individuals show greater resilience to and experience fewer pejorative outcomes in the presence of stressful stimuli".

Azutah [15] stressed that "the aggressiveness which occurred on a working place is the result of emotional provisions or mental predispositions. Research into health workers aggression [16] has identified several factors that might promote violence. Heat is an example; as temperatures rise, tempers flare. In work place, thus association leads to more batters being hit by no light in offices".

Direct attention training is one of the major techniques used to address unpleasant emotional responses such as aggression. According to Wilson et al [17] direct attention is essential for performing one's best. The major component of the training is the ability to focus one's attention on the task at hand and thereby not be disturbed or affected by irrelevant external and internal stimuli.

Langer [18] sees "direct attention as a flexible state of mind in which one is actively engaged in the present, noticing new things and sensitive to context. In this view, there is a particular emphasis on the active processing of new information and the recognition that all stimuli can be seen from multiple perspectives. Langer contends that the capacity to see those various, situation-dependent points of view enhances one's ability to respond to the environment effectively and appropriately". For the purpose of the study the hypothesis was tested was: "Direct attention training will have no significant impact on the aggressiveness of the experimental and control groups among health workers in Kogi State, Nigeria".

2. MATERIALS AND METHODS

The research design for this study, was quasi-experimental, pre-test, post-test control group design. Multi-stage sampling technique was used to select forty-seven male and female health workers in Kogi State for the study. The first stage of the multi-stage sampling process was the selection of two health care services Prince Abubakar Audu University teaching hospital Ayinba and peace hospital Ayingba Kogi State. The second stage involved the identification of aggressive health workers using Buss-Perry Aggression Questionnaire (BPAQ). Forty-seven health workers scoring 70 % or higher on the aggression assessment were identified as displaying aggressive behavior. The third stage involved the selection of health care services into experimental group using simple random sampling technique. Prince Abubakar Audu University Teaching Hospital Ayingba which comprised twenty-three (23) participants belonged to Group A and were given Direct attention training, while peace hospital Ayingba with twenty-four (24) participants belonged to Group B (control group). The control group were not given any treatment during the study.

The Table 1 below showed the players that have low and high scores from the test assessment conducted by the researchers so as to identify the students that will participate in the study. The sample of 145 health workers were administered Buss-Perry Aggression Questionnaire (BPAQ) and only 47 health workers were identified as having high scores, that is they exhibited aggressive behaviour. These 47 health workers formed the participants for the experimental study while those who had low scores were dropped.

A pilot study using test-retest method was used to determine the local reliability of the instrument. The instrument was administered twice on Marvelous Hospital using a sample of 20 health workers. The scores were correlated and a reliability co-efficient of 0.87 was obtained with the use of Pearson Moment Correlation co-efficient.

Table 1. Distribution of sample in pre-assessment selection for baseline data

Team	Number of Participants	Pre-Assessment scores low score	High Score
A	71	48	23
B	74	50	24
Total	145	98	47

2.1 Administration of Research Instrument

The administration of the research instrument was in three phases. The phases are as follows:

- Phase 1: Pre-treatment session
- Phase 2: Treatment Session
- Phase 3: Post-treatment session
- Phase 1: Pre-treatment Assessment

The researchers administered Buss-Perry Aggression Questionnaire (BPAQ) to the participants as pre-test two weeks before the treatment session.

Phase 2: Treatment Phase

There was a treatment group and one control group. The selected health workers were randomly assigned to treatment and control group. Group one was exposed to direct attention training, while group two, the control group, did not receive any intervention. The treatment group met once a week for eight weeks.

Phase 3: Post-test Assessment

At the end of the treatment which lasted for eight weeks, Buss-Perry Aggression Questionnaire (BPAQ) was re-administered to the same treatment and control groups.

2.2 Treatment Procedure

2.2.1 Group one: Direct attention training

The goal of direct attention training was to train the aggressive health workers on techniques to help them understand their emotions, particularly the internal and external stimuli that spur aggressive traits and in turn help them to dissociate or detach their attention from them.

Session 1: The researchers established rapport with the participants and also created an atmosphere of warmth and confidentiality. The objectives of the training were explained to the participants and their full cooperation was sought. The researchers encouraged the participants to share their thoughts, feelings and concerns as regards aggression. The meaning and forms of aggression were explained to the participants.

Session 2: The researcher revised concept and forms of aggression with the participants. The participants were guided to review the situations that can cause aggression and likely consequences on the health workers. These among others are working below expectations, physical pain etc.

Session 3: The previous session was reviewed in this session. The participants were exposed to internal and external distractions that form their thought prior or during work situation. They were encouraged to reveal how these distracters have affected their feelings and spur them to carry-out illegal act. Emphasis was made on discouraging inflicting insults colleagues or clients or patients in hospitals.

Session 4: The researcher introduced two direct attention skills to the participants. These were watching the clock face and Grid exercises. These exercises were developed to help eliminate negative thoughts by “parking them” or mentally setting them apart [19]. Watching the Clock’s face was focused on in this session. This is a three minutes exercise that requires several repetition and exposure to distracting situations for perfection. It begins with the participants focusing on the second hand of a clock as they lightly tap their foot at every five second interval for one minute. During the next minute the participants lightly tap their foot on every ten-second interval and then again on every ten-second interval, continuing to alternate until the last minute is complete.

Session 5: The previous session was reviewed with the participants. Watching the clock face was continued with the introduction of distracting situations. A transistor radio was increased in volume and non-participating health workers were encouraged to hang around while the participants demonstrate the exercise.

Session 6: This session focused on Grid exercise. This exercise required a block grid containing two-digit numbers from 00 to 99. The participants were guided to slant and cross off as many numbers as possible in one minute in order beginning with 00. A score in the high 20’s and into 30’s demonstrates exceptional concentration.

Session 7: The previous session was reviewed with the participants. Grid exercise continued with the introducing of distracting situation. Background noise from music was introduced while participants carried out the exercise.

Session 8: There was a review of all previous sessions. The participants were encouraged to reflect on the changes they had made and the understanding they had gained from the intervention. The post-test administration of the questionnaire. Bus-Perry Aggression Questionnaire was done immediately after the treatment.

2.2.2 Group two: Control group

The participants in this group were not exposed to any treatment during the study but were later guided on ways of managing aggression after the study. Data collected for this study were analyzed using descriptive and inferential statistics. The hypotheses was analyzed using analysis of covariance (ANCOVA) statistics at 0.05 level of significance.

3. RESULTS

3.1 Test of Hypothesis

The hypothesis states that direct attention training will have no significant impact on aggressiveness of experimental group and control group among health workers in Kogi State. The mean scores and standard deviation of respondents were computed and the result is presented in Table 2. The results showed that health workers in direct attention and control groups had mean scores of 92.07 and 91.02 respectively on aggressiveness. On exposure to

treatment, those in the control group had higher posttest mean score of 86.91 than their counterparts in the direct attention group (mean = 50.72, SD = 5.81). The observed mean difference of 41.42 in the direct attention group could be attributed to the effectiveness of the treatment at reducing health workers aggressiveness. To determine if this difference was statistically significant, the analysis of covariance (ANCOVA) was done and the result is presented in Table 3.

Table 3 reveals that direct attention had significant effect on health workers' aggressiveness in the experimental and control groups ($F_{1, 27} = 208.350, P < 0.05$). The null hypothesis is thus rejected. This implies that direct attention training had significant impact on health workers' aggressiveness in the experimental and control groups. The treatment accounted for about 88.5% ($\eta^2 = 0.885$) of the observed variance in health workers aggressiveness. The mean difference among the estimated marginal means of the groups, after correcting for the other effects in the model are presented in table 4 and 5.

Table 4 shows that control group had the higher estimated marginal mean of 87.92 than those in the direct attention group with an adjusted mean score of 51.43. It implies that the use of direct attention strategy constitutes effective strategy for reducing health workers aggressiveness.

Table 2. Descriptive data on pre and post-test mean scores of health workers' aggressiveness in direct attention and control groups

Group	N	Pre-test mean	SD	Posttest mean	SD	Mean diff
Direct attention	23	92.07	5.47	50.72	5.81	-41.42
Control Group	24	91.02	8.22	86.91	7.49	-3.2

Table 3. ANCOVA showing the effect of direct attention on health workers aggressiveness

Source	SS	Df	Ms	F	P	Partial Eta squared
Corrected model	9618.920	2	4814.472	105.249	.00	.886
Covariate (pretest)	44.914	1	44.914	.984	.330	.035
Group	9507.291	1	9507.291	208.350	.000	.885
Error	1232,045	27	45.631			
Corrected Total	10840.967	29				
Total	166505.000	30				

Note: $P < 0.05$

Table 4. Means scores by Treatment

Group	N	Mean	SD	Estimated Marginal Mean
Control Group	24	57.63	7.42	87.92
Direct attention	23	51.61	5.73	51.43

Table 5. Adjustment for multiple comparisons of estimated marginal means

Group	(J) Group	Mean difference (I-J)	Std. Erro	Sign	95% interval	Confine for difference
					Lower bound	Upper Bound
Control Group	Direct Attention	36.45458*	2.536	.000	31.279	41.647
Direct Attention	Control Group	-36.458*	2.536	.000	-41.648	-31.277

P < 0.05

The results in Table 5 reveals that there was significant difference between aggressiveness of health workers in the direct attention and control groups at 0.05 level of significance

4. DISCUSSION

The study hypothesis stated that direct attention training will have no significant impact on aggressiveness of experimental group and control group among health workers in Kogi State. The result of the analysis indicated that direct attention training had significant impact on aggressiveness of experimental group and control group among health workers in Kogi State. The hypothesis is therefore rejected. The reason for the impact of direct attention could be attributed to the contents of the intervention package that include exposing the participants to internal and external distractions that form their thoughts prior or during work situation. Also, using watching the clock face and grid techniques to narrow their focus. These findings were supported by Lane et al [20] who found out that redirection of attention is effective in preventing an emotional response with negative consequences. Similarly, experimental studies of Collins [21] and Mann et al [22-23] established the superior cognitive abilities of trained workers in attention controls strategies, who are capable of quickly extracting important information, encode and retrieve relevant information more efficiently in comparison with non-trained health workers.

This finding is also in line with Wilson et al [17] who averred that direct attention is essential for performing one's best and preventing negative stimuli or emotional responses like aggression. The major component of the training is the ability

to focus one's attention on the task at hand and thereby not be disturbed or affected by irrelevant external and internal stimuli. External stimuli may includes an assault from colleagues or patients lack of promotion or being stagganated for number of years etc. Internal stimuli include distracting body sensations and thoughts and feelings such as "My heart is exploding in my chest", "i\m, frustrated", "don't be too cool with the colleague or patient" the pain is fierce, "I' am being pushed to the wall", and "I can't bear it!" The urge to exhibit aggressive behavior stemming from the aforementioned thoughts can be curbed through consistent exposure to therapy [24-25].

5. CONCLUSION

Aggression continues to be a silent plague which manifest spontaneously in an unsuspecting health workers. All healthcare workers should be assessed to determine the prevalence of aggressive tendencies. Health workers with high levels of aggression require immediate attention, and direct attention training offers proven empirical psychological strategies to address this. It is established that direct attention training is essential for enhancement of health workers' performance and prevention of negative stimulior emotional responses like aggression.

6. RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

- Direct attention training should be adopted by Health Psychologist as part of emotional regulation strategies in

managing and controlling health workers' behaviour.

- A health psychologist should be employed in each hospital to help manage the mental well-being of healthcare workers.
- All doctors of each hospital should see it as a priority to establish the aggressive profile of their health workers.
- Government through ministry of health should employ professionally trained health psychologist and deploy adequate personnel to different hospitals in Kogi State.
- Experts in the areas of health psychology should get familiar with all available standardized research instruments for assessing health workers in hospital.

CONSENT

As per international standards or university standards, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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