

Gender Differential Effects Of Cognitive Behaviour And Client Centred Therapies On Social Adjustment Of People With Leprosy

Suleiman, F. Hafiz (PhD)

Ajao, S. Olajide.

Department of Educational Foundations, Kogi State University,
Anyigba, Nigeria

Abstract: *This study examined the gender differential effect of cognitive behaviour and client centred therapies on social adjustment of lepers. The study adopted the quasi-experimental non-randomized pre-test, post-test and control group involving 3 x 2 factorial designs. One hundred and fifty (150) leprosy patients participated in the study. The data collected for the study were analyzed using descriptive Statistics, ANCOVA and Scheffe post-hoc analysis. The results revealed that cognitive behaviour and client centred therapies were all effective in assisting lepers irrespective of their gender to develop high and positive social adjustment. On the basis of these findings, it was recommended that Government at various levels should appoint well trained counselling psychologists who are ready to work in practical counselling situations among the patients and patients irrespective of their gender should see the leprosy like any other disease which could be contracted by anybody and that if they are able to handle their experiences positively, they would still enjoy life with rewarding experiences.*

Keywords: *Social Adjustment, Leper, Leprosy, Leprosarium*

I. INTRODUCTION

Leprosy as a disease has been known since the Biblical times. Holden (2009) Submitted that it causes skin sores, nerve damage and muscle weakness that gets worse overtime if left untreated. Leprosy has affected humanity for over four hundred years. The age long stigmas associated with the disease in many part of the world remain a major obstacle to be surmounted by the patients even after the leprosy might have been treated. Though there are thousands of diseases but leprosy is unique because after been treated there is still terrible discrimination against the patients and they are not accepted by their neighbours and this has been there since the Old Testament and many cultures. Throughout history leprosy has been feared and misunderstood; the origin of the disease is unknown. Rotberg (1968) submitted that, the disease was first described around 600 B.C. the disease is an important cause of crippling deformities, the affected people have high psychosocial problems such as divorce, unemployment and displacement from their native place of residence

It is a fact that leprosy often has negative effects on a patient's social life, affecting marriage, employment opportunity, interpersonal relationships, leisure activities and attendance at social and religious functions (Scott, 2000). It is a common phenomenon in south western Nigeria that, people with leprosy are usually ostracized by their communities which usually makes social life more difficult for the patients. This accounts for the reason why the majority of the patients would prefer the risk of becoming crippled and disabled, to that of loosing whatever margin of their social prestige as a result of the disease, because for leprosy sufferers to loose this sense of belonging, is to loose a large part of whom they are and their family identity. One patient confirmed this by saying that, 'We can endure physical deformities, but what is difficult for us to endure is to be rejected by our community and those nearest and dearest to us'.

Women are particularly the most unfortunate group of leprosy patients. WebSpawner (2012) observed that many women have strong negative perceptions against the disease. This made the affected women to suffer more social isolation,

social rejection, hatred, and undue greater loss of marital satisfaction. Such perception also placed more social restrictions upon them than men with the same level of disease. It has been observed that, if a mother has leprosy, the health and social well-being of the entire family can be in serious danger. Fear of passing on the disease to offspring can prevent emotional closeness and bonding with her husband and children. It can also have negative effects on the patient's marital satisfaction and enjoyment. Also, first-hand information has revealed that most nursing mothers with leprosy do willingly stop breast-feeding their babies early in life.

It has been discovered by Holden (2009) that if young single lady contracts leprosy, she may not have opportunity to marry in life except if she is fortunate to marry another leprosy male patient in the leprosarium. This account for why polygamous family is common to some extents in the sanitarium. But the case of single male patients is a little bit different, as first-hand information revealed that some 'normal' women do get married to leprosy male patients. Some women do bear with their leprosy husband, even to the extent of staying with them (husband) in the leprosarium.

Uba (2004) observed that, the social implication of having leprosy remain a thing of concern to the patients and the society at large, because there are many social inhibitions on these lepers. Even after the leper must have been completely treated there still exists the problem of getting them re-integrated back to the society. This accounts for why many patients prefer to die or go into everlasting self exile once it is confirmed that they have leprosy. Uba (2004) still confirmed the situation of lepers which shows that having leprosy is a traumatic experience for the patients and their relatives because they are usually ostracized. The patients may also find it difficult to convince their friends and society that they can still be useful in the society, because of this reason, some lepers after irrespective of their gender after being treated and given certificate of medical fitness face social frustration due to the unfavourable attitude of the people toward them.

Although, Eberiso (1999) carried out a study on the result of a one year action project for the elimination of leprosy in poorly accessible areas of Akwa Ibom State of Nigeria. Uba (2004) carried out a study on the demographic variables on the adjustment needs of lepers in Nigeria. Likewise, Adeleye (1999) carried out a study on the treatment and adjustment needs of lepers in Nigeria. Yet the reality of Nigeria shows that some lepers irrespective of their sex do not know how to adjust socially to the new life in which they find themselves.

The observable evidence revealed that, most lepers do not consider themselves suitable for specific social gatherings and social activities in which they can perform well like people without leprosy. It is amused that these types of attitudes ultimately keep the social aspirations of lepers at a lower level thus leaving little chance for their social development. The result is that their existence becomes nothing but a burden for the family and society and if nothing is done about their social situation, they might not be able to enjoy social life.

Taking into account the above mentioned difficulties of lepers, the researcher is tempted to ask the question: Would there be gender differential effect of cognitive behaviour and client centred therapies on the social adjustment of lepers?

II. METHOD

DESIGN

This study adopted an experimental research. A 3 by 2 factorial design was adopted. In the design, the effects of the independent variables on the dependent variable were examined. The participants were randomly assigned to three groups. The first group was treated with cognitive behaviour therapy (CBT). The second group was given the client centred therapy (CCT); while the third group served as a control. There were two tests – pre test and the post – test.

POPULATION

The target population for the study comprised of all lepers in the six South Western States of Nigeria. The states are Lagos, Oyo, Ogun, Ondo, Osun and Ekiti states.

SAMPLE AND SAMPLING TECHNIQUES

The sample consists of 150 lepers from three States: Oyo, Osun and Ondo. Simple random sampling technique was employed to select these three States out of the six States in the zone. The social adjustment scale (SAS) was administered on all the lepers in the three States selected for the study and only lepers who scored 34 to 84 in the (SAS) Social Adjustment Scale, used for the study were selected for the study. These were subjects who scored low on the SAS and were viewed to need the treatments for social adjustment. The scores from the first administration of the SAS were taken as the pre-test scores for the lepers. Fifty (50) lepers were purposively sampled, (made up of 25 males and 25 females) with low social adjustment scores in each of the three States selected for the study. Thereafter, simple random sampling technique was used to designate lepers in Ogbomosho leprosarium in Oyo State as those in experimental group 1. They were treated with cognitive behaviour therapy (CBT), lepers in Iwo leprosarium in Osun State which were treated with client centred therapy as those in experimental group 2. Lepers in Akure leprosarium in Ondo State served as those in the control group. Lepers in this group did not receive any therapy. Lepers in each State (now referred to as each study group) were post-tested in their respective leprosarium

For the purpose of this study, Social Adjustment Scale (SAS) which was developed by Wiggins (1966) was adapted for the study. Hassan (1986) established the validity of Wiggins's scale by administering the scale to some social isolates and to some student's union leaders at the university of Ibadan, there was significant difference between the scores of two groups as reflected in a t-test of 3.06 with $df = 32$. To further establish the validity of the present instrument, a panel of Guidance and Counsellors, psychologists and sociologists, established its face and content validities. The instrument significantly differentiated between social adjusted people with leprosy and those that are not. The t-test value of 12.536 was obtained; this established the construct validity of the instrument at 0.05 level of significance with $df = 32$.

Wiggins (1966) reported reliability co-efficient of 0.78 for the scale. The test-retest reliability co-efficient, with two

weeks inter-test interval on 'normal' subjects at the university of Ibadan yielded a coefficient value of 0.77 (Hassan, 1986) All these show that the scale is a relatively stable measure of social adjustment. The reliability of the SAS used for this study was determined using the test-retest method. The instrument was applied on a sample of 50 lepers consisting of twenty-five male and twenty-five female. Two weeks later the same instrument was given to the same group of lepers. The data from the two administrations were subjected to Pearson's Product Moment Correlation analysis to determine the reliability co-efficient of the instrument. The correlation co-efficient was found to be 0.87. This enabled the researchers to conclude that the scale was reliable enough for use in this study.

PROCEDURES

The treatment procedures presented under the two experimental groups and the control groups guide the administration of the scale.

The procedures for administering the instrument and collecting data for this study were in the following three phases namely:

- ✓ Pre-treatment Phase
- ✓ Treatment Phase
- ✓ Post-treatment Phase

PRE-TREATMENT PHASE: Three treatment phases were formed in three leprosarria that were selected for the study (2 experimental groups and 1 control group). With the permission of the director of the social welfare and the leprosarium management in the three states already selected for the study, the investigator discussed the purpose of the study with the subjects. The subjects were sensitized on the need to cooperate with the investigator. The selected subjects for the study were subjected to a pre-test using the Social Adjustment Scale to establish the baseline data of the subject and to identify those that are deficient in the social adjustment.

TREATMENT PHASES: Based on the treatment packages. Eight sessions were used to conduct the treatment. The counselling sessions were run once a week for the experimental groups and for duration of ninety minutes per week for seven weeks. The selected samples were groups as follows.

Cognitive Behaviour therapy (Ogbomoso) Group A₁ (treated)
Client Centred Therapy (Iwo) Group A₂ ..
Control Group (Akure) Group A₃ no treatment

The two experimental groups (A₁ and A₂) received the cognitive behaviour therapy and client centred therapy respectively. The therapy consists of (i) the presentation of the rational for cognitive behaviour therapy and client centred therapy, (ii) analysis of social adjustment in rational terms, teaching clients to modify their self-talk, self-direction and finally (iii) home assignments.

The home assignments were discussed by participants and analyzed in subsequent sessions. These assignments are intended to sensitize participants in developing the awareness of their social adjustment situations as best as they could. Also, the home assignment was to stimulate the subjects so that they could learn to apply, analyse, synthesize and evaluate situations in social adjustment. The experimental groups went

through these processes for seven weeks. No treatment was given to A₃ which is the control group.

POST-TREATMENT PHASE: After the completion of the training programme, the SAS was administered on all the subjects in the experimental and control groups. The scores from this administration of the instrument constituted the post-test scores.

The questionnaire was administered by the researcher to the subject by hand with the instructions carefully read out and explained to the understanding of the students. They were given enough time to respond to the various questions after which the questionnaires were collected back on the spot to avoid any type of bias that may arise as a result of filling the answers to the questionnaires at home.

The reliability and validity of the research instrument was determined. Pearson Correlation Coefficient was used to determine the reliability of the instrument. The instrument was subjected to face and content validity by three experts from Department of Educational Foundations and Measurement and Evaluation at Kogi State University, Anyigba. The corrections and adjustments made were effected which the researcher used to build up the quality of the instrument. The reliability and internal consistency of the instrument was established through pilot testing of the instruments on 5 students who did not participate in the study, while test-retest method was employed. A person product movement correlation coefficient was used and it yielded a value of 0.87 which indicated that the instrument was reliable for the study.

III. RESULTS AND DISCUSSION

Data collected were analyzed using means, standard deviation, bar charts, analysis of covariance (ANCOVA) the hypotheses was tested at 0.05 level of significance. The results are presented in two parts based on the general questions and the hypotheses that guided the study.

DESCRIPTIVE ANALYSIS

QUESTION 1

Is there any difference in the social adjustment level of male and female subjects in the experimental and control groups?

In answering the question, pretest and posttest mean scores of male and female subjects in the experimental and control groups were obtained. The results are presented in table 1 and figure 1.

Groups	N	Male				N	Female			
		Pretest		Posttest			Pretest		Posttest	
		Mean	SD	Mean	SD		Mean	SD	Mean	SD
CBT	25	45.00	1.61	129.04	7.64	25	45.60	5.48	122.48	17.86
CCT	25	40.93	9.35	126.21	9.81	25	43.90	9.39	126.81	8.40
Control	25	50.15	2.68	49.50	2.45	25	49.96	3.46	50.42	1.98

Table 1: Descriptive analysis showing the social adjustment scores of Male and Female subjects in experimental and control groups

Table 1 and figure 1 shows the social adjustment scores of male and female subjects in the experimental and control groups. The results show that male subjects exposed to CBT, CCT and those in the control group had pretest mean scores of

45.00, 40.93 and 50.15 respectively. Their female counterparts in the CBT, CCT and Control groups obtained pretest mean scores of 45.60, 43.90 and 49.96 respectively. After treatments, male subjects in the CBT, CCT and control group had posttest mean scores of 129.04, 126.21 and 49.50 respectively, while their female subjects exposed to CBT, CCT and the control group obtained posttest mean scores of 122.48, 126.81 and 50.42 respectively. From the above results presented, it has been demonstrated that there is no difference in the social adjustment of male and female lepers exposed to the same treatments.

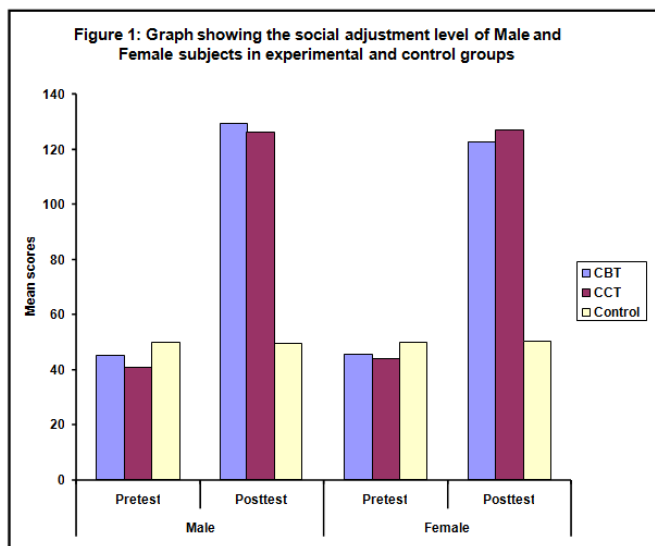


Figure 1

QUESTION 2

Is there any difference in the social adjustment levels of cured and yet to be cured subjects in the experimental and control groups?

In order to answer the research question, subjects were re-grouped based on the level of cure (those who were “not yet cured” and those who were “cured a little” were classified as “yet to be cured” while those who were “completely cured” constituted a group). Mean scores of cured and yet to be cured subjects on social adjustment before and after treatment were obtained. The results are presented on table 2 and figure 2.

Groups	N	Cured				N	Yet to be Cured			
		Pretest		Posttest			Pretest		Posttest	
		Mean	SD	Mean	SD		Mean	SD	Mean	SD
CBT	25	45.56	1.36	129.44	4.01	25	45.04	5.55	122.08	18.85
CCT	24	44.17	8.49	127.08	10.09	26	40.35	9.96	125.88	8.37
Control	24	49.96	3.04	49.92	2.26	26	50.15	3.11	49.96	2.31

Table 2: Descriptive analysis showing the social adjustment scores of Cured and yet to be cured subjects in experimental and control groups

Table 8 indicates the social adjustment scores of cured and yet to be cured subjects exposed to CBT, CCT and those in the control - group before and after treatment. The results show that cured subjects exposed to CBT, CCT and the control groups had pretest mean scores of 45.56, 44.17 and 49.96 respectively. Their posttest mean scores are 129.44, 127.08 and 49.92 respectively. Similarly, pre adjustment mean scores of yet to be cured subjects in the CBT, CCT and control groups are 45.04, 40.35 and 50.15 respectively while their posttest are 122.08, 125.88 and 49.96 respectively. The results

from the analysis revealed that there is no difference in the social adjustment levels of cured and yet to be cured patients exposed to the same treatment.

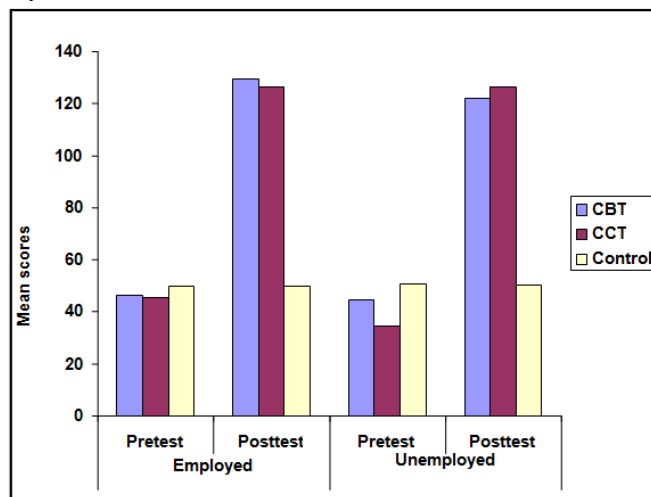


Figure 2: Comparison of social adjustment levels of Employed and Unemployed subjects in experimental and control groups

HYPOTHESIS 1

There is no significant difference in the social adjustment levels of male and female subjects in the experimental and control groups.

The adjusted mean scores of male and female subjects in the experimental and control groups are presented in table 3.

	CBT	CCT	CONTROL
Male	129.08	126.38	50.38
Female	128.44	126.57	50.42

Table 3: Adjusted mean scores by gender and treatment

Table 3 shows the adjusted mean scores by gender and treatments. The results show that male subjects exposed to CBT and CCT and those in control group had the adjusted mean scores of 129.08, 129.38 and 50.38 respectively; while their female counterparts in the CTB, CCT, and control recorded the adjusted mean scores of 128.44, 126.57 and 50.42 respectively the results show that both therapies had observable impact on the treated subjects.

The scores were thereafter compared for statistical significance using Analysis of Covariance (ANCOVA) at 0.05 level of significance. The results are presented in table 4.

Source	SS	Df	MS	Fcal	Ftable
Corrected Model	194053.599	6	32342.267	347.567	2.09
Covariate (pretest)	92889	1	92.889	.998	3.84
Sex b	122.997	1	122.997	1.322	3.84
Group a	160177.192	2	80088.596	860.673	2.99
Sex X Group a x b	435.620	2	217.810	2.341	2.99
Error	13306.641	143	93.053		
Corrected Total	207360.240	149			
Total	1729038.000	150			

P > 0.05

Table 4: Summary of 3x2 ANCOVA on SAS scores of male and female subjects

The data in Table 4 show that there was a significant main effect of treatment (Factor A) but no significant main effect of factor B (Gender) and no significant interaction effect (axb).

Therefore the hypothesis was not rejected. Even though there were slight differences in the adjusted mean scores of male and female subjects, the differences were not statistically significant.

HYPOTHESIS 2

There is no significant difference in the social adjustment levels of cured and yet to be cured subjects in the experimental and control groups.

Subjects who were cured a little and those who were yet to be cured were collapsed to form “yet to be cured” group. The adjusted means scores cured and yet to be cured subjects in the experimental and control groups are presented on table 5.

	CBT	CCT	CONTROL
Cured	129.41	112.81	49.92
Yet to be cured	127.11	125.88	49.98

Table 5: Adjusted cell means by cure status and study groups

Table 5 indicates the adjusted cell means by cure status and the study group. The results show that subjects that were exposed to CBT, CCT and those in control group had adjusted means scores of 129.41, 112.81 and 49.92 respectively. Moreover, also the yet to be cured subjects in the CBT, CCT and control recorded adjusted means scores of 127.11, 125.88 and 49.98 respectively.

The scores were thereafter compared for statistical significance using Analysis of Covariance (ANCOVA) at 0.05 levels. The results are shown on Table 6.

Source	SS	Df	MS	Fcal	Ftable
Corrected Model	194164.825	6	32360.804	350.697	2.09
Covariate (Pretest)	61.867	1	61.867	.670	3.84
Curative Level	267.441	1	267.441	2.898	3.84
Group	158999.123	2	79499.562	861.545	2.99
Curative Level X Group	402.631	2	201.316	2.182	2.99
Error	13195.415	143	92.276		
Corrected Total	207360.240	149			
Total	1729038.000	150			

$P > 0.05$

Table 6: Summary of 3x2 ANCOVA on cure status by study Groups

The data on Table 6 show no significant main effect of cure ($F_1, 143=2.90$). There was also no significant interaction effect of status on cures and study groups. ($F_2, 143=2.18$) therefore, hypothesis 2 is accepted

DISCUSSION

Social adjustment refers to an individual general adaptation to his environment and the demands of life such as the way he relates to other people that is interpersonal behaviour, handle his responsibilities, deals with stress for example, growing up and ageing: and meets his own needs and life satisfaction. It is important to understand that social adjustment however defined is not a one-way process in which the individual conforms to the dictates and requirement of others, but rather a two-way process for it includes the ability to be oneself, hold on to one’s own and make reality adapt itself to one’s requirement and needs, nor does it imply a state or condition of contentment or peace of mind because life itself is changing, the ability and capacity to revise ones

attitudes character and behaviour is an important ingredients of social adjustment (Jonathan 1994)

The results of this study have brought into limelight the supposed roles of CCT and CBT in enhancing the social adjustment of lepers. Without attaining a life of full adaptation and social adjustment, no individual is likely to enjoy interpersonal relationship which will assist one to live a productive life at any level in life.

Every individual requires operating in an environment that is devoid of emotional blocks; disability as threatening environment has debilitating effect on one’s productivity. Social adjustment requires that one achieves a level of interaction whereby one does not allow any situation to erode ones social stability at any time. By the time an individual starts to appreciate the usefulness and contribution of cognitive behaviour and client centred therapies and having a good mind set on pertinent issues, one is likely to be better adjusted to social situations that may affect one’s life and productivity.

The result of the findings revealed that male and female subjects exposed to the same treatment did not differ significantly in their social adjustment. Therefore the hypothesis was not rejected. This finding might be as a result of the negative effects which leprosy does have on the health, social status and psychological wellbeing of both male and female clients, since there is no gender bias in the occurrence of the disease. The result supports the findings of Blenkiron (2009) who confirmed that there would be no difference in the social adjustment of male and female client exposed to the same treatment. However the result indicates that the main effect of treatment on social adjustment levels of subjects is statistically significant. This further confirmed the efficacy of CBT and CCT. Hollanswort (1986) affirmed that CBT has been shown to be effective with the treatment of generalized anxiety disorder of male and female client. Also Gay Guys (2009) submitted that CCT improved the self esteem of both male and female clients and have helped them to trust their inner feelings and experiences as valuable sources of making decision.

Hypothesis 2 states that, there is no significant difference in the social adjustment levels of cured and yet to be cured subjects in the experimental and control groups. The result on Table 5 shows that there was no significant difference. Therefore the hypothesis was accepted. It implied that cured and yet to be cured subjects exposed to the same treatment strategies did not differ significantly in their social adjustment. This might be as a result of the physical appearance of patients because both cured and yet to be cured patients used to have physical deformities, shabby look, and unpleasant odour. But effect of treatment on the subjects is statistically significant. The finding supports that of Baldwin (2000) that there is no significant difference in the social adjustment of cured and yet to be cured leprosy patients that are exposed to the same treatment. The result also corroborates that of Williams (2005) that CBT is very effective for social depression and social anxiety of clients of different categories, and of Cain (2001) that CCT appeared to be particularly effective in patients with depression and social adjustment issues. A possible explanation for the effectiveness of cognitive behavior and client centred therapies on the treated subjects could be due to

the opportunities provided the participants in self-analysis and skill training in effectively dealing with negative interrelated social personality factors, which include irrational and self-defeating thought/beliefs toward 'self'.

IMPLICATION FOR COUNSELLING

The study has some implications for the people with the leprosy irrespective of their gender, non-governmental organizations, counseling psychologist and the society in general. The result obtained from this study has demonstrated that there is no gender differential effect of Cognitive Behaviour and Client Centre therapies in the enhancement of social adjustment of the patients.

The findings from this study have great multi-dimensional implications for counseling psychologists, non-governmental organizations, medical personnel who handle patients in clinics, patients themselves, as well as government at various levels. This is because the social problem that confronts lepers is the direct concern of the entire society. By implication, counseling is a must for every leprosy patient irrespective of their gender and this must be professionally handled.

Findings in this study have also shown that the treatments have no bias against gender. In other words, the two treatment methods were equally effective for both male and female subjects. This implies that counseling psychologists can adopt the two treatments for both and female victims of social maladjustment. Also Government at various levels could allow for more deliberate planned programme of action that will assist agencies that work with the leprosarium managements to make the best use of the opportunities available through counseling psychology.

RECOMMENDATIONS

Results findings from this study demand urgent attention by all concerned including counseling psychologists, non-governmental organizations, government at various levels, patients and the general public. This is because the study has revealed that gender has nothing to do about the psychological treatment of social adjustment of patients with leprosy.

On the basis of these findings, it was recommended that Government among other things should appoints cognitive behavior and client centred oriented counseling psychologists who are not gender bias and should be those who are ready to

work in practical counseling situations among the patients and patients among other things should see the leprosy like any other diseases which can be contracted by anybody and that if they can handle their experiences squarely and positively they would enjoy life with rewarding experiences.

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