

Original Article

Effects of Supportive Group Therapy on Levels of Hopelessness in Patients with Cervical Cancer at Cancer Diseases Hospital in Lusaka, Zambia

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ABSTRACT

Background: Hopelessness is a subjective appraisal of negative expectations about the occurrence of a highly valued outcome coupled with the sense that one lacks control over desired events in the future. Hopelessness is an early symptom of depression and is comorbid with cervical cancer. Supportive Group therapy offers an economical and time efficient solution. In Zambia and particularly at Cancer Disease Hospital such structured supportive group therapy is not being offered. This study aims to ascertain whether supportive group therapy can reduce levels of hopelessness in cervical cancer patients at Cancer disease hospital in Lusaka Zambia.

Methodology: This was a double blinded Randomized Controlled Trial conducted at Cancer Disease Hospital in Lusaka Zambia. It was conducted between March 2019 and September 2020. Patients with histologically confirmed diagnosis of cervical cancer were recruited. Socio-demographic characteristics and clinical presentations were elicited by detailed history taking and file review. All the participants completed Pre-HAI Questionnaire and their results were noted. They were then divided into a control and intervention group using computer generated numbers. The intervention group then attended one

hour Supportive group therapy sessions weekly for four weeks. The control group continued to receive the usual support of their family members and Cancer disease hospital staff. Both groups were then administered the Post- HAI Questionnaire and their results were noted.

Results: 49 patients were recruited. Patient retention was 92% (n= 45). Majority of the participants were of the age group 41-50 years i.e. control group (n =12) intervention group (n= 7). Majority were; married control (n= 11) intervention (n= 12), unemployed control (n=14) intervention (n= 18), had social support control (n=14) intervention (n= 18). Only social support correlated with lower HAI scores (p= 0.047). There was no correlation between therapy and post HAI scores as both p- values i.e. control (p= 0.683) intervention (p= 0.368) were greater than confidence interval 0.05. The intervention group had a greater reduction in HAI scores from (p= 0.621 to p= 0.368) in comparison to the control group (p= 0.707 to p= 0.683).

Conclusion: There was a difference (yet statistically insignificant) in treatment outcomes of cervical cancer patients receiving supportive group therapy to those not receiving supportive group therapy. That is to say that the intervention group showed a greater reduction in HAI scores in comparison to the control group. Social support is the only significant factor associated with lower levels of hopelessness.

Keywords: Hopelessness, Hopelessness assessment in illness questionnaire (HAI), Cervical cancer, Supportive group therapy

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INTRODUCTION

Hopelessness is a subjective appraisal of negative expectations about the occurrence of a highly valued outcome coupled with the sense that one lacks control over desired events in the future. Paul established that 43% of cervical cancer patients at cancer disease hospital have varying degrees of Hopelessness. This is because being diagnosed with cervical cancer causes significant psychological distress. There is the initial crisis of adapting to the catastrophic news and later desperate need to control emotions whilst making crucial and often poorly explained treatment decisions. According to Gruman and Spiegel the patient has many concerns such as; fear of death, dependency, disfigurement, disability and abandonment, as well as disruption in relationships, role functioning, and financial status. Several other factors have been cited to contribute to levels of hopelessness. These factors include site of cancer, symptoms and predicted course, pre-existing character style, coping ability, ego strength, developmental stage of life, and impact and meaning of cancer at that stage, as well as family and social support systems.

At CDH, currently Zambia's only cancer hospital, patients have been (anecdotally) observed to lose hope in their future or possibility of recovery. Often they are observed to be psychologically withdrawn and attach little importance to compliance to their treatment. This is especially observed in those whose cancer is at an advanced stage and is being managed palliatively.

Brabender and Fallon noted that supportive group therapy is being used worldwide in cancer patients. However, in Zambia and particularly at CDH no such structured psychological support groups exist. This could either be because the clinicians are unaware of the benefits or effectiveness of supportive group therapy or not enough evidence has been provided to validate the effectiveness of supportive group therapy. With this background it was imperative to determine whether supportive group therapy could help alleviate levels of hopelessness in cervical cancer patients.

Considering the strong association between hopelessness and Depression as demonstrated by; Beck et al., 1974; Abramson et al., 1989; Johnson et al., 2001; Beedie et al., 2002; Jones et al., 2003; Burgess et al., 2005; And Schairer et al., 2006;), any reduction in levels of hopelessness could also prevent the occurrence or reduce the severity of Depression in these cervical cancer patients.

METHODS

The study was a double blinded Randomised Controlled Trial (RCT) conducted at Cancer diseases hospital in Lusaka, Zambia. This limited bias and confounders. Over a two months period, patients with histologically confirmed cervical cancer diagnosis were referred to us by the attending oncologist. Socio-demographic characteristics and clinical presentations were elicited by detailed history taking and file review. Using simple randomisation with computer generated numbers; the recruited participants were divided into two groups; an intervention group and a control group. A qualified psychologist administered the Hopelessness in Illness Questionnaire (HAI) to both groups. The results were scored and noted as the pre-intervention HAI scores.

The intervention group was further divided into groups of 10. Each of these groups were then administered Supportive group therapy by the psychologist. Weekly one hour meetings were held for four weeks. The sessions were conducted by a qualified psychologist competent with conduction of supportive group therapy. The control group had the usual support and care of staff and their families. At the end of the four weeks, both groups were administered the HAI questionnaire again. Results were scored and noted as post- HAI Scores. *Analysis was done using Statistical Packaging for Social Sciences (SPSS) version 21.* Bias was avoided as all participants were randomised to either intervention or non-intervention group. Randomization was done using computer generated Numbers. Errors were

minimised by using a double entry system, ranges and consistent checks. Chi square test was used to determine the association between categorical variables. Whilst a paired t-test was used to determine the effect of supportive group therapy in the intervention group compared to the control group. Statistical significance was conducted at 95% confidence level (p-value 0.05). Ethical approval for the study was given by ERES-Converge IRB.

RESULTS

The study recruited 49 participants. Four participants did not complete follow up to post HAI administration. This was due to the following reasons. One participant died shortly after recruitment. Cause of death was not established. Three were lost to follow up. 45 participants fully completed the study and the data was analysed.

Majority of the participants were of the age group 41-50 years i.e. control group 54.5% (n =12) intervention group 31.8% (n= 7). Majority were married; control 50% (n= 11) intervention 54.5% (n= 12). Those unemployed from the control group amounted to 63.6% (n=14) whilst from the intervention group 81.8% (n= 18). 63.6% (n=14) of the control group had social support against 81.8% (n= 18) intervention group. 45.5% (n= 10) of the control attained secondary education whilst from the intervention majority 50% (n=11) had attained primary education. Only social support correlated with lower HAI scores (p= 0.047). There was a difference (yet statistically insignificant) between post HAI scores as both p- values i.e. control (p= 0.683) intervention (p= 0.368) were greater than confidence interval 0.05. However, the intervention group had a greater reduction from (p= 0.621 to p= 0.368) in HAI scores in comparison to the control group from (p= 0.707 to p= 0.683).

Table 1: Sociodemographic characteristics of the participants

Demographic characteristic of patients	Control Group n (%)	Intervention Group n (%)
Age group		
21-30	1 (4.5)	1 (4.5)
31-40	4 (18.2)	6 (27.3)
41-50	12 (54.5)	7 (31.8)
51-60	2 (9.1)	4 (18.2)
61-70	2 (9.1)	4 (18.2)
71-80	1 (4.5)	0 (0)
Marital Status		
Single	2 (9.1)	3 (13.6)
Married	11 (50)	12 (54.5)
Divorced	3 (13.6)	0 (0)
Widowed	6 (27.3)	7 (31.8)
Occupation		
Employed	8 (34.4)	4 (18.2)
Not employed	14 (63.6)	18 (81.8)
Level of Education		
Nil	4 (18.2)	6 (27.3)
Primary	8 (36.4)	11 (50)
Secondary	10 (45.5)	4 (18.2)
Tertiary	0 (0)	1 (4.5)
Family/social support		
Present	14 (63.6)	18 (81.8)
Not present	8 (34.4)	4 (18.2)
Total	22 (100)	22 (100)

Table 2: Associations between sociodemographic characteristics and hopelessness

Sociodemographic characteristics	Control group p - value	Intervention group p-value
Occupation vs Pre HAI	0.393	0.128
Occupation vs Post HAI	0.414	0.368
Level of education vs Pre HAI	0.434	0.922
Level of education vs Post HAI	0.733	0.781
Social support vs Pre HAI	0.519	0.047
Social support vs Post HAI	0.585	0.558
Age vs Pre HAI	0.661	0.220
Age vs Post HAI	0.979	0.632
Marital status vs Pre HAI	0.722	0.441
Marital status vs Post HAI	0.332	0.469

Table 4: Effects of therapy on HAI scores

Relationship between treatment and HAI	p-value
Pre HAI in control group	0.707
Post HAI in control group	0.683
Pre HAI in intervention group	0.621
Post HAI in intervention group	0.368

DISCUSSION

In this study 54.5% (n= 12) cervical cancer patients were in their fourth to fifth decade and were married. This is a reflection firstly; of late presentation to hospital as well as a lower life expectancy in an economically challenged sub-Saharan nation such as Zambia. Secondly, it reflects the high significance Zambian women attach to being married. However, despite the majority of participants being married, there was no statistical difference between hopelessness scores of married or single/divorced patients. The quality of the marital relationship could have had a bearing on our findings. One could be married but may not necessary have the emotional financial or physical support from ones spouse and/or children.

This correlated well with findings by Pehlivan et al. In contrast Sahin et al noted in their study that participants that were married had higher levels of hopelessness. Majority of participants from both the intervention (81.8%) and control group (63.6%) were unemployed. With regard educational status majority of the participants in the control group had been be to secondary school (45.5%) with no participant reaching tertiary education. Majority of the participants in the intervention group had been to primary school with (4.5%) participant who had tertiary education. The overall demographic features of this study were very similar to Mantegna et al findings. Mantegna et al. noted that the vast

majority of patients in their study were: married, (63.8%), lived with someone (87.6%), had higher education (84.1%) and (51.7%) were unemployed.

There was no statistical significance between sociodemographic factors and pre/post HAI in all patients in the control group as all p-values were above 0.05. In the intervention group, there was only one statistical significance and it was between social or family support vs Pre HAI with a p=0.047.

This means social support is associated with levels of hopelessness as was described in literature by Nasheen and Kamal, that having social or family support will lower levels of hopelessness as the family provides comfort and care throughout the cancer illness. However, Tan and Karabulutlu reported contrary. It is important to state that this study captured the presence or absence of such social and or family support. It did not quantify as to whether the family members were actually providing care or the quality of care and support. It remains to be known as to whether the reported larger presence of social/family support provided by the intervention group was indeed effective to account for higher baseline HAI scores. What is certain is the positive relationship between actual and not perceived social support and health. Actual Social support is well documented as one of the most popular, functional and preferred modes of coping with hopelessness as noted by Scherer-Rath.

HAI scores in both the control and intervention group were greater than 0.05. However, the intervention group showed a better reduction in HAI scores than the control group. Statistically insignificant yet clinically significant. This entailed that some clinical improvement or alleviation of hopelessness occurred. Such a minimal improvement yet with a general trend toward overall reduction of levels of hopelessness and helplessness was observed in other psychological interventions for cancer patients by Breitbart et al. They conducted individual psychotherapy to a series of metastatic cancer patients and noted significant difference in outcomes of the control and intervention group. Contrarily Cunningham et al. randomised women

with metastatic cancer to 35 weekly sessions of group therapy (Supportive and CBT) or a control group. At 5 years follow up similar levels of helplessness/hopelessness were noted. In their defence the authors pointed out that the control group receiving supposed usual care of treatment may have not entirely been “no treatment”. They further noted that 28% attended other forms of supportive therapy (not necessary structured). This latter fact may have contributed to such a result of our study as noted from the demographic findings that in fact the control group had 63.6% social support compared to 81.8% for the intervention group. It remains to be known as whether the 63.6% social support of the non-intervention was more tangible than that of the intervention group. It is also possible that the both intervention and control group may have had other forms of non-structured support such as pastoral/ Religious group of which this study did not take into consideration.

Despite recording only modest improvement in HAI post intervention, results of many studies i.e. Levin et al., Elderman et al., Moorey et al., Wu et al., and Greer et.al, indicate that supportive group therapy helps to enhance positive mental health by reducing anxiety and depressive/ hopelessness symptoms.

This study recommends the provision of Supportive group therapy to all cervical cancer at CDH as part of their routine treatment. It is also recommended that social support systems (patients relatives, friends, spiritual/ church associates, workmates, cervical cancer patient survivors) be encouraged and strengthened so as to increase levels of hope.

CONCLUSION

This study revealed two main findings; firstly, that patients with cervical cancer at Cancer Disease hospital showed a modest improvement in Hopelessness with a general trend towards lower levels of HAI post intervention scores. Secondly, that, social support was the only variable that correlated to high levels of hopelessness. Considering the strong association between Hopelessness, Depression and suicide, such a reduction in hopelessness resulting from brief

Supportive group therapy indicates the possibility of prevention/ reduction of Depression in Cervical cancer patients. Further, this study has shown that further improvements in hopelessness could be possible if the patient's social support systems were strengthened.

Declarations

No conflict of interest was existent

Acknowledgements

To the staff at Cancer Diseases Hospital and Department of Psychiatry at the UTH.

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