

Training nursing staff who have been victim of work labour harassment on the island of Crete in strengthen of their self-esteem with anonymous group psychotherapy through teleconferencing

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ABSTRACT

Background: Professional self-esteem for nursing profession refers to the extent to which a person experiences its work as important while appreciating its performance as important. There is evidence that self-esteem is important for health. The majority of the victims of occupational harassment of nursing staff have a middle self-esteem.

Purpose: This study tests the effectiveness of adding a fourteen weeks schema-focused Anonymous group psychotherapy via teleconference in victims of workplace harassment in nursing personnel in the island of Crete, Greece.

Method: An investigation was carried out in the area of Crete between August 2017 and January 2018 in fourteen Health Centers, two Primary National Health Networks, four Emergency Department, eleven Intensive Care Units. The total sample of the present study was 213 nurses. This case-control study was carried out by a qualified psychologist. The participants were 14 nurses victims of workplace harassment assigned randomly to psychotherapy group and a control group to enhance of their self-esteem.

Results: Statistically significant difference are presented in the psychotherapy group during a 14-week period for the scale of General Self-esteem (p -value = 0.002) measured with the Culture Free Self-Esteem Inventories.

Conclusions: Anonymous group psychotherapy via teleconference is a safe and effective method for treating self-esteem in victims of workplace harassment.

KEYWORDS: Anonymous group psychotherapy, Teleconference, Self-esteem, Nursing Personnel

Introduction

According to Rosenberg (1986), self-esteem does not have to do with feelings of superiority or perfection, but refers to feelings of self-respect and self-fulfillment. William James (1996), argues that self-esteem is the ratio between a person's real achievements and aspirations. Positive self-esteem has to do with the positive evaluation of the individual and vice versa. You consider a valid mental health indicator. The person with positive self-esteem is characterized by increased self-confidence and feels proud of itself (Coon 1998).

Professional self-esteem for nursing profession refers to the extent to which a person experiences its work as important while appreciating its performance as important (Luhlanen & Crocker 1992). Professional self-esteem is determined by: a. (Muhlenkamp & Saylew 1986), the level of nursing education, social discrimination, social violence, social stability, the existence of strong, close relationships with other professional groups, colleagues, social recognition, or lack of autonomy and limited participation in decision-making (James, 1991).

The effect of self-esteem on the work performance of

employees and their relationship to other work-related variables is not clear. Studies by Mossholder, Bedeian & Armenakis (1981, 1982) have argued that employee self-esteem affects the relationship between work roles and job satisfaction, as well as the relevance of work performance and conflict of work roles. In contrast, self-esteem does not affect the relationship between work performance and confusion of work roles.

Nursing, as a profession, is characterized as a “high intensity profession”. This only has negative effects on the self-esteem of the nurse as an individual as well as a professional. Researchers conducted a survey in Wales for health community nurses who found that most nurses had an average self-esteem. A factors associated with low self-esteem is alcohol consumption (Fothergill et al., 2000).

Finally, the survey on work hurt and self-esteem in nurses in Spain showed that one out of five nurses (17%) faced workplace harassment and 8% of these cases reported weekly or daily intimidation. This prevalence of fear is high among Spanish nurses and is clearly associated with the highest exposure to harassment at work and lower levels of self-confidence (Iglesias & De Bengoa Vallejo, 2014). According to Randle (2003), the effect of continuous exposure to harassment includes injuries such as reduced self-esteem.

In Korea, in 2006, a study was conducted that looked at the impact of self-esteem and social support for the depressive symptoms of 200 nurses. It was found that self-esteem and social support influenced depression of nurses. Therefore, it is proposed to increase the depressive management programs required to establish systematic management to maintain high self-esteem (Kim et al, 2007).

Research has shown that nurses have low professional standing, low economic earnings, not good public image and limited reinforcement of self-esteem (Khowaja et al., 2005). In another relevant study involving a random population of 154 health care nurses, there was a positive correlation ($r = 0.249-0.313$, $P \leq 0.008$) between occupational skills and self-esteem indicators (Karanikola, Papatthanassoglou, Giannakopoulou & Koutroubas, 2007).

Group Psychotherapy is to prevent psychological or educational deficits and at the same time to cultivate skills and alternative places of thought and behavior. Group interventions, which are governed by the same principles as individual ones, have a more direct effect as they have the advantage of being accessed by more people. They are usually short-term and require one or two therapists (in the case of many patients), resulting in a reduction in the waiting list as well as the treatment costs. In group therapy, five to fifteen people meet with one or more experts and talk about what concerns them. The members of the group through feedback express their own senses of what they hear. This interaction gives team members the opportunity to test new ways of

behaving and learn more about how they interact with others. The team is able to offer support and alternatives (Blackmore, 2009).

Internet psychotherapy is called, distance psychotherapy, psychotherapy by videoconference (usually via skype), and so on. It can be done through text or video or even Virtual Reality Glasses. Psychological support through the internet (online via skype) has the advantage of bringing people closer to psychotherapy who could not have started under other conditions. We refer to people living in islands or in the province where access to mental counseling is difficult due to distance or even impossible. We also refer to people who have the ability to go to a healer’s office. On the other hand there are some other problems, such as some kinetic difficulty or anything else that prevents them from reaching the office of the psychologist. Studies have proven the effectiveness of online psychotherapy (Konstantinidou & Totsika, 2016).

There are no surveys in Greece related to the self-esteem in nursing staff. The first aim of this study was to measure self-esteem among the nursing personnel working in the Primary Health Care, Emergency Departments (ED) and Intensive Care Units (ICU) of Crete. The second aim was the investigation of the effectiveness of Anonymous group psychotherapy via teleconference to enhance self-esteem in nursing personnel who has been victim of workplace harassment.

General Objective

The general objective of the study was to investigate the self-esteem in nursing staff in Primary Health Care, in Emergency Departments (ED) and in Intensive Care Units (ICU) of five major hospitals and 11 Health Centers in the prefecture of Crete.

Specific Objectives

- To measure self-esteem among the nursing personnel
- To investigate the effectiveness of Anonymous group psychotherapy via teleconference to enhance self-esteem in nursing personnel who has been victim of workplace harassment.

Significance of the Study

The present study is expected to be used by Human Resource Management of the Hospitals and Health Care Centers to design appropriate policies that can enhance self-esteem in nursing personnel who were victims of workplace harassment.

Materials and Methods

Study design

The survey involved 213 nurses from five (5) hospitals and eleven (11) Health Centers in the island Crete. Of these, 24.9% were working at the Emergency Departments, while the other

45.5% were working in Intensive Care Units and 29.6% in Primary Health Care. The present study was carried out from August 2017 to January 2018 and included the voluntary and anonymous participation of nursing staff. The study was approved by the Bioethics Committee of the 7th Health District of Crete (Protocol Number: 8662, 19-05-2017), University Hospital of Heraklion, Crete (Protocol Number: 15986, 05-09-2017), General Hospital of Heraklion “Venizelio Pananio”, Crete (Protocol Number: 8018, 10-05-2017), General Hospital of Chania, Crete (Protocol Number: 7631, 04-05-2017), General Hospital of Rethymno, Crete (Protocol Number: 14478, 22-08-2017) and General Hospital of Agios Nikolaos, Crete (Protocol Number: 9612, 02-06-2017). The results of the current study were announced in the Administration of the 7th Health District of Crete. Written consent was given by all participants to take part in the study. The psychometric tools included in the study are presented below.

Phase I

Eligible participants were those nursing personnel who worked in selected Primary health centers, Emergency Departments and Intensive Care Units in rural and urban areas of Crete. Of the 401 nurses who were invited to participate, 213 agreed to and provided usable data. Consenting individuals (n = 213) completed an interview who used a structured questionnaire to record sociodemographic information and self-esteem problems. Self-esteem function was evaluated using the Greek version of the Culture-free Self-esteem Inventories (Stalikas, Triliva & Roussi, 2002).

Phase II

Based on Phase I, all those who scored on the middle scale (mild to moderate severity) of anxiety and were identified according to the definition of Leymann as a victim of workplace harassment were invited to participate in Phase II of the study (which entailed receiving a comprehensive evaluation of their self-esteem).

Instruments

For the purpose of the present research, the French version of “Leymann’s Inventory of Psychological Terror” (LIPT) instrument, the Greek Version of “Leymann Inventory of Psychological Terror” and the Instrument and the Culture-free Self-esteem Inventories were applied.

Leymann’s Inventory of Psychological Terror consists of 45 items, each item measuring the exposure to workplace harassment the last 12 months with two response options (yes or no). In addition, two questions on the frequency were included (monthly basis, weekly, or daily) as well as the duration of workplace harassment (years and months). In five sections are grouped the 45 harassment behaviors (1) social relationships at work (criticism, no possibility to communicate, and indifference and verbal aggression), (2) exclusion (isolation, avoidance and rejection), (3) job tasks (too many tasks, no

tasks, uninteresting tasks, humiliating tasks, tasks superior, or inferior to skills), (4) personal attacks (attacks on origins or opinion, rumors, ridicule and gossiping), and (5) physical violence (physical threats and sexual annoyance). According to Leymann, those who report exposure to at least one of the 45 behaviors that concerns workplace harassment the last 12 months, weekly or more, and for six months or longer are defined as victims of workplace harassment.

The Culture-free Self-esteem Inventories is a self-referencing questionnaire, which includes (without the lie scale) 32 items. These statements seek to measure the general, personal and social perception of themselves (self-perception) and are divided into two groups: those that are high and those showing low self-esteem. Each question answers either with “yes” or with “no”. Three self-assessment sub-scales are included: general (16 statements), social (8 statements) and personal (8 statements). There is also a lie scale o (8 statements). The answers that show high self-esteem are scored with 1 and those that show low self-esteem are scored with 0. High self-esteem indicates the questions answered with “YES” and are as follows: 2, 3, 6, 7, 8, 10, 11, 15, 21, 31, 35, 37, and the questions answered with “no” and are: 1, 5, 12, 13, 16, 17, 18, 20, 22, 23, 25, 26, 27, 28, 30, 32, 34, 36, 39, 40. The maximum possible total score self-esteem is 32 (excluding false scale). 30 points or more indicate very high self-esteem. 27 - 29 points indicate high self - esteem, 20 - 26 points indicate moderate self - esteem, 15 - 19 points indicate low self - esteem, and 14 points and below indicate very low self - esteem. For subclasses, statements 2, 3, 6, 8, 11, 13, 18, 20, 23, 25, 26, 28 30, 32, 37, 39 measure general self-esteem, 1, 5, 7, 10, 16, 21, 31, 35 measure social self-esteem, and 12, 15, 17, 22, 27, 34 36, 40 measure personal self-esteem.

Permissions were obtained from the developers for the English and Greek versions of the Culture-free Self-esteem Inventories. The time needed to fill out the questionnaire was 4–6 minutes.

Study population

The present research conducted among nurses working in primary health-care setting with the participation of 14 Health-care Centers and 5 Hospitals in the island of Crete. 213 nurses take part in the survey. The study was performed in the following departments: 14 Health-care Centers, 4 Emergency Departments (ED) and 11 Intensive Care Units (ICU). The collection of sample was performed during August 2017 to January 2018. The sessions of group psychotherapy through teleconference started in March 2018 and ended in June 2018.

Inclusion criteria for the total study population

- Nursing staff had to work in hospitals and health centers that were included in the National Health System and had the same system of on-call duty to ensure the homogeneity of the sample.

- Nursing personnel with any educational level with each working relationship.
- Nursing staff from all Intensive Care Units, Emergency Departments and Primary Health Care Structures of Crete
- Written consent of the nursing staff to participate in the study.

Inclusion criteria for the intervention group and the control group

- Participation of nursing staff, that was located on the middle scale (mild to moderate severity) of anxiety.
- Nursing personnel who have been work harassed according to the definition of Leymann defining as victims of workplace harassment those who report exposure to at least one of the 45 behaviors that concerns workplace harassment the last 12 months, weekly or more, and for six months or longer.

Exclusion criteria for the total study population

- Nursing students of any educational level.

Exclusion for the intervention group and the control group

- Nursing staff was that not identified according to the definition of Leymann as a victim of workplace harassment.
- Nursing staff identified with severe anxiety.
- Nursing staff who retired or declared resignation prior

to or during interference with Group Psychotherapy via teleconference.

Statistical analysis

With respect to the statistical analysis, the quantitative variables are reported based on the mean ± standard deviation (mean ± sd) as well as the median and the interquartile range (IQR), while for the qualitative variables we have the corresponding frequencies and percentages. Depending on the appropriate statistical and / or graphic controls, it is recommended that median and the interquartile range (median, IQR) are used as representative descriptive measures. The appropriate parametric and non-parametric statistical checks were also performed to investigate any differences between the three structures (ICU, Primary Health Care and ED) and the scales under study, defining the materiality level at 0.05. The statistical analysis was performed using statistical software IBM SPSS statistics (version 21.0). A p-value <0.05 was considered statistically significant.

Results

Characteristics of the study sample

In the present study, the participants were nursing personnel (n=213) and the majority of them 89.2% of the total sample were women and Intensive Care Units (ICU) nurses represented 45.5% of the study population. The mean age for the nursing staff of the total sample was 41.73 years. The 75.1% (n=160) of the sample were married. The majority of the total sample of the study 64.8% (n=138) was graduates of Technological Educational Institute and the 8.9% (n=18) had a master’s degree. Demographic characteristics of the study population are shown in table 1. The mean length of employment was 15.78 (SD = 8.49). In regard of the average of work in the current department was 8.00 years (SD = 10.50) table 2.

Characteristics	n (%)
Departments	
	Intensive Care Unit 97 (45.5)
	Primary Care 63 (29.6)
	Emergency Department 53 (24.9)
Gender	
	Male 23 (10.8)
	Female 190 (89.2)
Marital Status	
	Married 160 (75.1)
	Unmarried 49 (23.0)
	Widowed/ Divorced 4 (1.9)
Educational Level	

	Secondary School	43 (20.2)
	Technological Educational Institute	138 (64.8)
	University	13 (6.1)
	Master degree	18 (8.4)
	PhD	1 (0.5)

Table 1: Characteristics of the study population (N = 213).

1. Characteristics		
Age (years)		41.73±7.33*
Years of work		15.78±8.49*
Years of work in the current work position		8.00 (10.50)**

* mean ± sd
**median (IQR)

Table 2: Descriptive characteristics among the study population (N = 213).

Reliability of Culture-free Self-esteem Inventories (James Battle)

Cronbach's α coefficient was 0.763 suggesting high internal consistency (General self-esteem: $\alpha = 0.737$, Social self-esteem: $\alpha = 0.442$, Personal self-esteem: $\alpha = 0.724$, General self-esteem: $\alpha = 0.763$).

Valuation of self-esteem

From the results of the Culture-free Self-esteem Inventories, it was found that 51.6% of the total sample who participated

in the research had a middle self-esteem, while the lowest percentage 8.0% had very high self-esteem and the 8.0% had very low self-esteem. Also, it was found that 17.4% had low self-esteem and 15% had high self-esteem. Also, the results showed that the mean General self-esteem was 12.27, the mean Social self-esteem 6.35, the mean Personal self-esteem was 3.86 and the scale of lie was 4.77 as shown in table 3. There are no statistically significant differences between the three departments Intensive Care Unit (ICU), Emergency Departments (ED) and Primary Care. Below are analyzed the level of self-esteem for the three departments (ICU, ED,

Scale	n (%)	Mean	SD	Median	IQR	Range
Culture-free Self-esteem Inventories (James Battle),						
General self-esteem *		12.27	2.89	13.00	3.50	2-16
Social self-esteem *		6.35	1.38	7.00	1.00	1-8
Personal self-esteem *		3.86	2.16	4.00	3.50	0-8
Scale of lie		4.77	1.56	5.00	2.00	0-8
Total self-esteem		22.47	5.28	23.00	7.00	4-32
<i>Too low</i>	17 (8.0)					
<i>Low</i>	37 (17.4)					
<i>Middle</i>	110 (51.6)					
<i>Hugh</i>	32 (15.0)					
<i>Very Hugh</i>	17 (8.0)					

* (IQRs) as representative descriptive measures for this scale

Table 3: Descriptive characteristics of the scales among the study population (N = 213).

Very Low			Level of self-esteem					Total
			Low	Middle	High	Very high		
Department	ICU	N	8	17	49	13	10	97
		%	8.2%	17.5%	50.5%	13.4%	10.3%	100.0%
	Primary Care	N	3	6	41	8	5	63
		%	4.8%	9.5%	65.1%	12.7%	7.9%	100.0%
	ED	N	6	14	20	11	2	53
		%	11.3%	26.4%	37.7%	20.8%	3.8%	100.0%
Total		N	17	37	110	32	17	213
		%	8.0%	17.4%	51.6%	15.0%	8.0%	100.0%

$\chi^2(8)=13.898, p=0.080$

Table 4: Level of self-esteem among the study population (N = 213).

Primary Care): ICU: very low self-esteem 8.2%, low self-esteem 17.5%, middle self-esteem 50.5%, high self-esteem 13.4%, very high self-esteem 10.3%, ED: very low self-esteem 11.3%, low self-esteem 26.4%, middle self-esteem 37.7%, high self-esteem 20.8%, very high self-esteem 3.8%, Primary Care: very low self-esteem: 4.8%, low self-esteem 9.5%, middle self-esteem 65.1%, high self-esteem 12.7%, very high self-esteem 7.9% as shown in table 4.

Treatment

The anonymous group psychotherapy via teleconference program consists of ten weekly sessions, each lasting 60 min, over a fourteen-weeks period. Group size was seven members and one active therapist. This treatment combination has four

goals: 1) the reduction of total anxiety 2) the reduction of the intensity of symptoms of anxiety 3) the strengthening self-esteem 4) the reduction of cases of people who have been victims of work-related harassment. The present article refers to objective no. 3 the strengthening self-esteem.

Characteristics of the study sample

Seven (n=7) patients began treatment and seven (n=7) subjects take part in the control group. The majority of them 85.7% were female for the control group and 100 % were female for the intervention group. Intensive Care Units (ICU) nurses represented 28.6 % for the control group and 42.9% for intervention group of the study population. Primary Care nurses represented 42.9 % for the control group and 14.3%

1. Characteristics		n (%) Control group	n (%) Intervention group
Departments			
	Intensive Care Unit	2(28.6)	3(42.9)
	Primary Care	3(42.9)	1(14.3)
	Emergency Department	2(28.6)	3(42.9)
Gender			
	Male	1(14.3)	0(0.0)
	Female	6(85.7)	7(100.0)
Marital Status			
	Married	5(71.4)	4(57.1)
	Unmarried	2(28.6)	3(42.9)
	Widowed/ Divorced	0(0.0)	0(0.0)
Educational Level			
	Secondary School	1(14.3)	0(0.0)
	Technological Educational Institute	6(85.7)	7(100.0)

Table 5: Characteristics of the study population (N = 14).

for intervention group of the study population. Emergency department nurses represented 28.6 % for the control group and 42.9% for intervention group of the study population. The mean age for the nursing staff of the total sample was 41.42 years for the control group and 36.42 for the intervention group. The majority of the subjects of the two groups were graduates of Technological Educational Institute. Demographic characteristics of the study population are shown in table 5. The mean length of employment was 16.71 (SD = 5.55 years) for the control group and 12.71(SD = 9.42

years) for the intervention group. In regard of the average of work in the current department was 8.28 years (SD = 6.42 years) for the control group and 7.57 (SD = 7.45 years) for the intervention group table 6.

Treatment's results

Seven (n=7) patients began treatment and seven (n=7) subjects take part in the control group (Fig. 1). There was a 100% retention rate for the 14 weeks in the treatment group, and there was a 100% retention rate for the control group.

Characteristics	Control group	Intervention group
Age (year)	41.42 ± 6.34	36.42±2.57*
Years of work	16.71 ± 5.55	12.71± 9.42*
Years of work in the current work position	8.28 ± 6.42	7.57±7.45**

* mean ± sd
**median (IQR)

Table 6: Characteristics of the study population (N = 14).

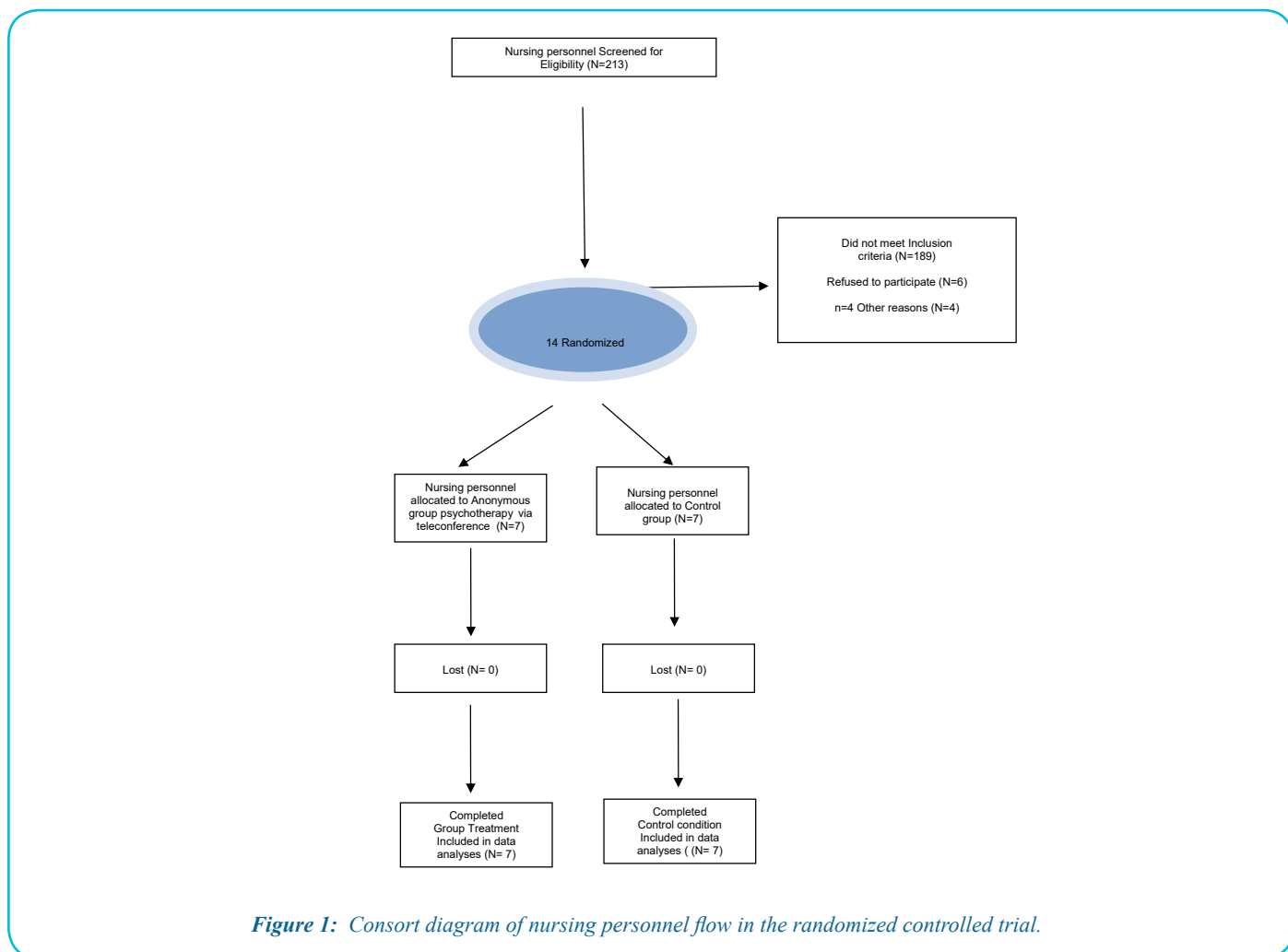


Figure 1: Consort diagram of nursing personnel flow in the randomized controlled trial.

Overall, the retention rate for the study was 100%.

Table 7 shows the results of the six outcome measures for the two groups. As hypothesized, at the end of the Group Psychotherapy via teleconference - group treatment, demonstrated that there was a significant difference between the groups in favor of treatment group. Specifically, the treatment group had significantly higher scores at the end of

ten sessions of group psychotherapy via teleconference. As can be seen from the James Battle Intercultural Questionnaire of Self-Assessment, a rise in the mean of General Self-esteem, Social Self-esteem, Personal Self-esteem, and Total Self-Assessment after treatment has been observed. The values decreased of the control group for General Self-esteem, Social Self-esteem, Personal Self-esteem and Total Self-esteem in which there was no treatment table 7.

Scale	n (%)	Mean	Sd	Median	IQR	Range	p-value
Culture Free Self-Esteem Inventories							
General self-esteem							
Control group t1		9.14	2.32	9.0	4.0	7-13	0.902
Control group t0		9.42	4.07	9.0	7.0	3-15	
Intervention group t1		12.71	1.79	13.0	3.0	10-15	
Intervention group t0		8.57	1.90	9.0	3.0	6-11	0.002
Social self-esteem							
Control group t1		5.28	1.49	5.0	3.0	3-7	0.383
Control group t0		6.0	1.0	6.0	1.00	4-7	
Intervention group t1		5.57	0.78	6.0	1.0	4-6	
Intervention group t0		5.14	1.86	5.0	4.0	3-8	0.456
Personal self-esteem							
Control group t1		2.28	1.38	2.0	3.0	1-4	0.001
Control group t0		6.71	1.38	7.0	3.0	5-8	
Intervention group t1		5.14	2.03	4.0	4.0	3-8	
Intervention group t0		4.0	1.29	4.0	2.0	2-6	0.383
Lie scale							
Control group t1		4.57	0.78	5.0	1.0	3-5	0.456
Control group t0		4.0	1.91	4.0	2.0	1-7	
Intervention group t1		5.42	1.27	5.0	3.0	4-7	
Intervention group t0		4.71	0.75	5.0	1.0	4-6	0.318
Total self-esteem							
Control group t1		16.7	4.25	15.0	8.0	14-29	0.318
Control group t0		22.13	5.85	21.0	11.0	13-37	
Intervention group t1		23.42	2.67	24.0	5.0	21-36	
Intervention group t0		17.71	2.81	17.0	6.0	15-31	0.097
Very low							
Control group t1	1(14.3)						
Control group t0	0(0.0)						
Intervention group t1	0(0.0)						
Intervention group t0	2(28.6)						
Low							
Control group t1	3(42.9)						
Control group t0	4(57.2)						
Intervention group t1	1(14.3)						
Intervention group t0	0(0.0)						
Intermediate							

Control group t1	3(42.9)						
Control group t0	3(42.9)						
Intervention group t1	6(85.8)						
Intervention group t0	5(85.7)						
<i>High</i>							
Control group t1	0(0.0)						
Control group t0	0(0.0)						
Intervention group t1	0(0.0)						
Intervention group t0	0(0.0)						
<i>Very high</i>							
Control group t1	0(0.0)						
Control group t0	0(0.0)						
Intervention group t1	0(0.0)						
Intervention group t0	0(0.0)						

Table 7: Descriptive characteristics of the two groups, the Intervention Group and the Control Group for the 14 persons of nursing staff for the Culture Free Self-Esteem Inventories before (Week 0) and thereafter (Week 14)

Statistically significant differences are presented in the intervention group for the scale of General Self-esteem (p -value = 0.002). In particular, as shown in table 7, the participants in the survey had an average of 8.57 and a median 9.0 before intervention (week 0, $t = 0$) and after intervention (week 14, $t = 1$) had an average of 12.71 with a mean of 13.0. For the control group come up for the General Self-esteem an average of 9.42 and a median of 9.0 for week 0 ($t = 0$) and an average of 9.14 with a median of 9.0 for week 14 ($t = 1$) are obtained for the control group. The average value for Social Self-esteem was 5.14 and the median was 5.0 before intervention (week 0, $t = 0$) and after intervention (week 14, $t = 1$) was 5.57 and 6.0 respectively. The existence of an interaction between the increase of Social Self-esteem and Group Psychotherapy through videoconference (p -value = 0.456 > .05) was rejected by the implementation of statistical control t-test. For the control group, the average of Social Self-Assessment was 6.0 and the median was 6.0 for week 0 ($t = 0$) and after intervention the average was 5.28 with a median of 5.0 for week 14 ($t = 1$). For Personal self-esteem there is a statistically significant decrease (p -value = 0.001) in the second evaluation (week 0, $t = 0$) for the control group. The intervention group shows an increase of Personal Self-esteem at week 14 with an average from 4.0 to 5.14. From the implementation of t-test control, the interaction between the increase in Personal Self-esteem and Group Psychotherapy via videoconference was rejected (p -value = 0.383 > .05). The nursing staff who took part in the intervention group, prior to treatment five ($n = 5$) of the seven ($n = 7$) subjects had intermediate self-esteem and two ($n = 2$) had very low self-esteem. After intervention, six ($n = 6$) persons had mean self-esteem and only one person ($n = 1$) had low self-esteem. At

this point, there was an increase in self-esteem but there was no positive statistical significance table 7.

Discussion

The present research investigated the self-esteem in a sample of 213 persons of nursing personnel in five major hospitals and eleven Health Centers in the prefecture of Crete.

As far as the working characteristics of individuals are concerned, it was found that most nurses worked in the Intensive Care Unit (ICU) and the fewer in the Emergency Department (ED). The average length of work experience of the sample was 15.78 years and the work experience in the part that worked during the survey was 8 years. In this sample, the majority of the total sample was married 75.1% and the unmarried was 23.2%. The mean age for the total sample was 41.73 years.

In the present research, the results of the Battle Questionnaire for Self-Esteem showed that 51.6% of the nursing personnel that took part in the study had a middle self-esteem, while the lowest percentage of the total sample (8.0%) had a very high self-esteem. Another relevant study revealed that 60.1% of nurses had an average self-esteem. The correlation of the analysis also revealed a linear negative relationship between self-esteem and emotional exhaustion. An important linear relationship was found between self-esteem and lack of personal integration (Yaghoobnia, Mazloom, Ghadry & Esmaeili, 2003).

With regard to self-esteem, comparisons of the present study showed that most individuals for all structures had

average self-esteem, namely ICU (50.5%), ED (37.7%) and Primary Care (65.1%). There were no statistically significant differences between the three structures in relation to the level of self-esteem, despite the rather large difference in many percentages, probably due to the existence of many categories at the level of self-evaluation ($p = 0.080$). A research conducted in Wales on community mental health nurses found that most of them had average self-esteem (Fothergill et al., 2000).

The James Battle Culture-free Self-esteem Inventories observed increase in total Self-Esteem following intervention with group psychotherapy via videoconferencing. Control group values for total self-assessment in which there was no intervention decreased. Statistically significant differences are reported in the intervention group on the General Self-Esteem scale (p -value = 0.002, $p \leq 0.05$). Also, the results showed an increase in the mean of General Self-Esteem, Social Self-Esteem, Personal Self-Esteem, and Total Self-Esteem after intervention. Control group values for General Self-Esteem, Social Self-Esteem, Personal Self-Esteem and Total Self-Esteem in which there was no intervention were reduced. Studies concerning programs to enhance the self-esteem of nursing staff have not been realized so far have only been conducted in school units where one of the main purposes was to investigate teacher-counseling intervention in relation to student self-esteem. In this study, group counseling was used and a total of six two-hour sessions were conducted without a control group. The conclusion reached is that self-esteem is particularly helpful to the learner in their balance as an individual and their integration into the learning process (Bouhayer, 2011).

Limitations of the study

Some methodological limitations of the present study must be mentioned.

First, the female population constituted the largest proportion and this is due to the fact that the majority of nurses are women.

Second, the uncertainty and fear of stigmatizing the subjects under study can also be considered as limitations of the present study.

Third, the long duration of the study prevented hospital staff from participating in the study.

And finally, the anonymous participation of subjects in the group Psychotherapy by teleconference chosen as an intervention to avoid stigmatization does not allow the dynamic of the group through the participants' faces show.

Conclusions

The evaluation of the results shows that workplace harassment is an existing reality with high rates in nursing personnel in Crete. The highest percentage of the participants has average self-esteem.

In conclusion, the findings of the present study suggest that the implementation of group psychotherapy via teleconferencing can lead to significant favorable changes in enhancing self-esteem. In addition, it was found from the results of the research that interventions when carefully designed and regulated can yield favorable results.

Future research

Further research in the future will be able to confirm the long-term effects of corresponding interventions to enhance self-esteem. According to the results of the study, the following areas of research were proposed:

- Studies for the reduction of self-esteem in the work environment of nursing staff in order to identify the reasons for the increased percentages of above mentioned.
- Studies evaluating interventions that enhance self-esteem, for example, make a comparison between two different interventions of group psychotherapy via teleconferencing and personal psychotherapy via teleconferencing.
- Intervention studies evaluating the use of mobile applications e.g. mobile phone, tablet, etc. and the use of artificial intelligence through an independent online platform to connect anonymous victims of workplace harassment with support groups at any time.
- Future studies will assess self-esteem enhancement improve sleep problems, general musculoskeletal symptoms, cardiovascular symptoms, cognitive problems, phobias, anxiety and also will reduce the number of work-related victims.
- Research efforts on the implementation and evaluation of programs related to psychological support and counseling of nursing staff suffering from professional harassment

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Citation: Maria M. Maniou, PhD, et al "Training nursing staff who have been victim of work labour harassment on the island of Crete in strengthen of their self-esteem with anonymous group psychotherapy through teleconferencing". *American Research Journal of Nursing*, vol 7, no. 1, 2021, pp. 1-11.

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