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Abstract: The aim of this study is to explore the attitude of Physiotherapists (PT) about psychological rehabilitation in sports injured patients. The study design is cross sectional study. The data was collected through a distribution of questionnaire among 123 certified PT. Questionnaire adapted from Physiotherapists and Sports Psychology Questionnaire (PSPQ) used to find the attitude and data analyze by using SPSS for results. The result showed that 83% PT believed that it is important to provide psychological rehabilitation to patient with sports related injuries. 86% think social and emotional support benefit in the recovery of sports injured patient. 66% used techniques to enhance self confidence and self-esteem and 62% taught patients emotion controlling strategies, 69% used relaxation techniques on sports injured patients and 71% PT recommended therapy reduces psychological problems in the patient is suffering from sports related injuries” The result of the this study showed an overall positive attitude.

Key Words: Mental health, Sports, Psychology, Rehabilitation

Introduction

Psychological rehabilitation is composed of two terms psychology and rehabilitation. Psychology is defined as the study of thinking and attitude of an individual. (WHO. 2016). World Health Organization states Rehabilitation as techniques that restore and improves a person's psychological social functional physical and sensory level. (APA. 2016). Psychological rehabilitation is the branch of science that cures the emotional functional and cognitive problems of people and improves the standard of living and quality of life. (Rangaswamy, S. M., Jose, M. B., JoAnne., Epping, J., Michelle, F., Thomson, P., Benedetto, S., & S. 2001). Mental, physical and social health serves as an integral part of healthy lifestyle. Unluckily it is found that mental health

and its disorders usually termed as psychological disorders are not taken seriously therefore psychological disorders suffering population is increasing day by day. According to World Health Organization “a population of 450million people is affected from psychological disorders annually and only few receive psychological rehabilitation”. (Merriam, W. 2016). Psychological rehabilitation results in increase ability to cope up with emotions, it reduces false hazards associated with injuries specially sports related injuries, it motivates a person and encourages them to lead a normal life and recovery period is reduced. (Hayley, R., & Jill, T. 2011) Large number of people participates in sports related activities resulting in increased occurrence of sports related injuries. About 17million sports injuries take place in America

alone each year and 30 million in United Kingdom. Sports related injuries can be defined as injuries that occur due to sports activities making difficult for a person to continue its functional level. (Monna, M., & Arvinen-Barrow. 2009) The most commonly used method is the PRICE principle. In which P stands for protection against another injury, R stands for restriction from activity, I stands for icing, C stands for compression and E stands for elevation of the damage part and most effective preventions are warmups, training before participation and abandon immediately in case of fatigue. (WebMD. 2016) Patients suffering from sports related injuries usually undergo psychological problems after injury or during rehabilitation either due to prolong non ambulation or due to prolong recovery period. (Hayley, R., & Jill, T. 2011) Recent studies suggest that psychological rehabilitation reduce healing time in persons with sports injuries like knee and ankle injuries. In 2001 Cupal and Brewer suggest that by using psychological rehabilitation procedures like relaxation and guided imagery session a reduction in injury related anxiety and pain was observed in athletes. (Armatas, C., Yiannakos, G., & Velkopoulos. 2007) Psychological rehabilitation in sports injured person helps them to develop sense of control of their rehabilitation process. The most common psychological issues the sports injured person faces are stress, anxiety, anger, depression, feelings of self-doubt. An injury affects an athlete state of mind greatly as described by Brown in 2005. He said that an injury affect is beyond physical; it endangers a sportsman or woman's self-confidence and esteem. A recent study in America says that sports person having stress before playing season faces more difficulties in coping up with injuries. Strategies of psychological rehabilitation used in sports injured persons: Goal settings, Healing Imagery, Pain Management Imagery, Rehabilitation-Process Imagery, Performance imagery, Cognitive and motivational imagery, Relaxation techniques, Self-talk and Social support. (Monna, M., & Arvinen-Barrow. 2009)

Material And Methods

A cross-sectional study was conducted among 123 with uses of convenient non-probability technique. Certified physiotherapists who have completed their DPT program, and have one year working experience. Physiotherapist were included those who were working in different hospitals and universities of Hyderabad, Karachi, Jamshoro and Nawabshah. Undergraduate DPT students, diploma holder physiotherapists and physiotherapists having less than one year experience were excluded from the study. The mean age of participants was 33.4 with SD value 6.230, 70% of participants were female and 30% of participants were male. The aim of my research is to access attitude among physiotherapists regarding psychological rehabilitation of injured patients and to inquire about use of psychological rehabilitation in sports injured patients. The data was collected through a distribution of questionnaire among certified physiotherapist. The questionnaire Physiotherapists and Sports Psychology Questionnaire (PSPQ) was extracted from study conducted by Monna Arvinen-Barrow to find physiotherapist attitude regarding psychological rehabilitation in patients with sports related injuries . For evaluation of data SPSS (Statistical Package for the Social Science) software, version 20 was used. The questionnaires were anonymously administered to the physiotherapists, with the permission of ethical review committee. Informed consent was taken from the participants before administering the questionnaires.

Results

Figure 1 showed, 83% physiotherapists answered with yes and 17% answered with no on asking "Is it important to provide psychological rehabilitation to patients with sports related injuries".

Figure 2 showed, answering about "Do you think social and emotional support benefit in the recovery of sports injured patient" the answer

was yes of 86% physiotherapists while the answer was no by 14% physiotherapists.

Figure 3 showed, on asking “Have you ever provided sports injured patient with techniques to enhance self confidence and self-esteem” 66% physiotherapists answered with yes and 34% physiotherapists answered with no as their response.

Figure 4 showed, The response of 62% physiotherapists was yes while the response of 38% physiotherapists was no on asking question “Have you ever taught a patient emotion controlling strategies”.

Figure 5 showed, the answer to the question “Have you ever used relaxation techniques on sports injured patients” revealed that 69% physiotherapists responded with yes and 31% participants responded with no.

Figure 6 showed, response of the question “Do you think group therapy reduces psychological problems that the patient is suffering from sports related injuries” the result showed that 71% physiotherapists responded with yes and 29% physiotherapists responded with no.

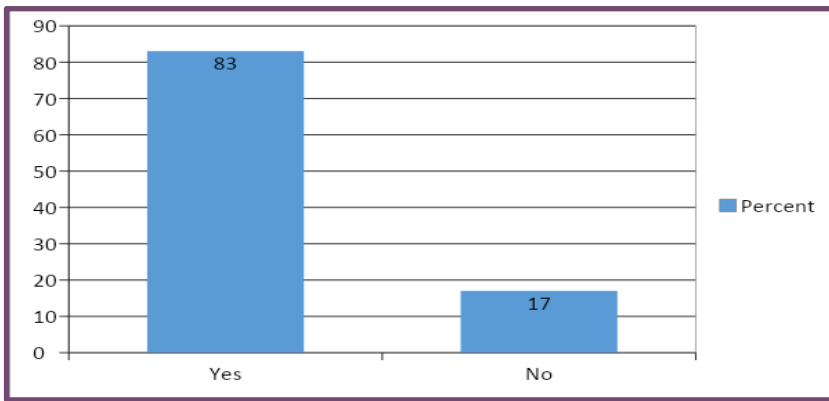


Figure 1: Is it important to provide psychological rehabilitation to patient with sports related injury?

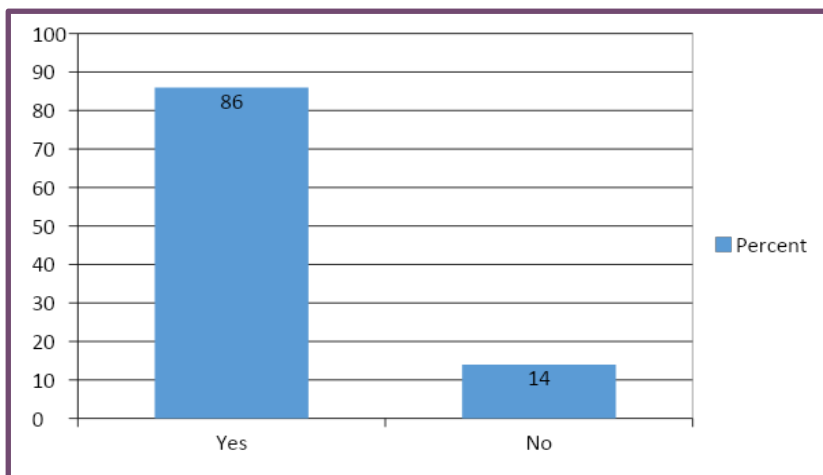


Figure 2. Do you think social and emotional support benefit in the recovery of sports injured patient?

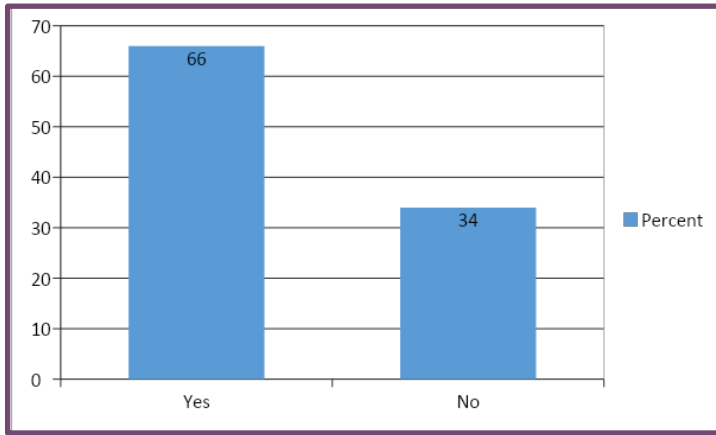


Figure 3. Have you ever provided sports injured patient with techniques to enhance self confidence and self-esteem?

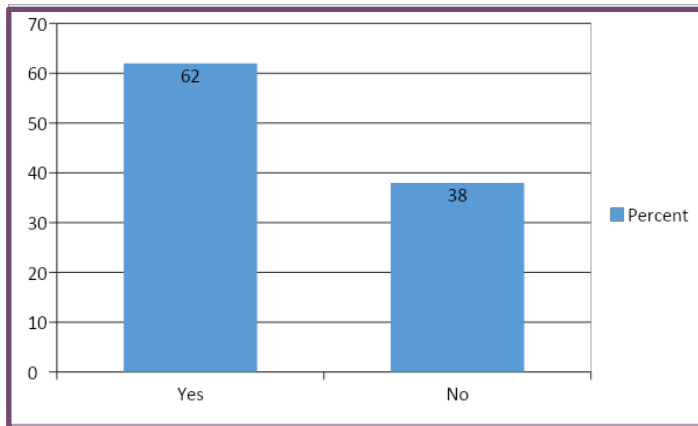


Figure 4. Have you ever taught a patient emotion controlling strategies?

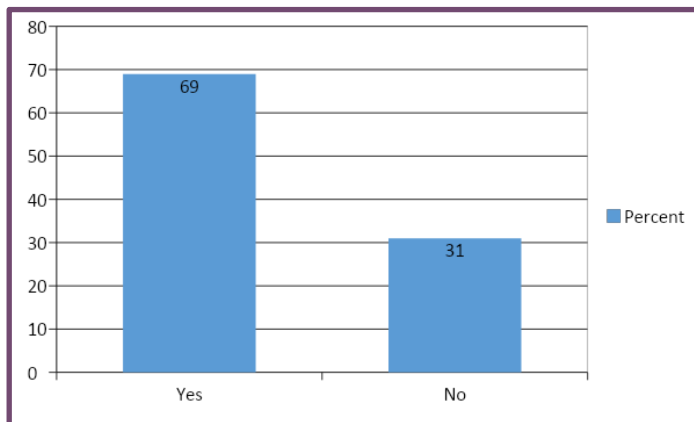


Figure 5. Have you ever used relaxation techniques on sports injured patient?

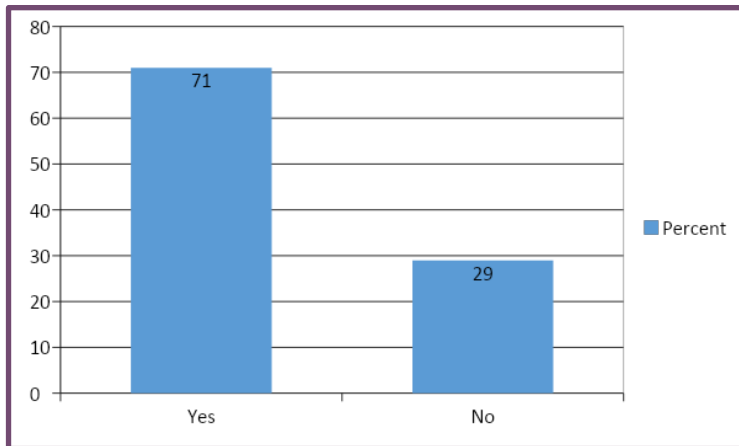


Figure 6. Do you think group therapy reduces psychological problems that the patient is suffering from sports related injuries?

Discussion

This study is deemed to provide better understanding that psychological rehabilitation is vital in the healing process of injured sports persons. Through this study we will get better understanding of how physiotherapists perceive the importance of psychological rehabilitation and its effectiveness in mental wellbeing of injured sports person. Psychological rehabilitation improves sports persons' psychological, social and functional level. Lack of psychological rehabilitation among sports persons suffering from injuries ultimately leads to severe injury induce depression and anxiety which will lead to increase in recovery period. Psychological rehabilitation plays vital role in encountering psychological issues which once assess and manage well in appropriate time period will help to decrease rehabilitation period and encouraging the sports persons to return back to normal life style.

S A Galambos, P C Terry et al presented a research in March 2005 on elite sports injured persons determining psychological interpreters for sports related injuries, the ratio of occurrence of injury among them and influence of mood and stress on the interventions for psychological rehabilitation through normative data. Screening was done through questionnaire

for 845 sports persons out of which 412 were men and 433 were women. Two scales namely Brunel mood scale and perceived stress scale were used for collection of normative data. The data collection revealed that 67% sports persons were injured annually, 18% went under damage at the time of screening and 233 sports person were unaffected. In Unaffected sports persons mood disorders like fatigue, irritation, hopelessness are due to orthopedic problems. The scale for stress and mood are important to determine the factors influencing in injury. The result says that psychological procedures are highly effective for guessing sports related injuries and ratio of injuries should be reduces in sports persons to avoid psychological issues among them. (Galambos, S. A., Terry, P. C., Moyle, G. M., & Locke, S. [2005](#))

In 2002 B Hemmings, L Povey's study got published on how physiotherapists encounter with psychological issues and what are their views regarding psychological aspect of their practice. Total population of 179 physiotherapists participated in the data collection procedure. Physiotherapists and Sports Psychology Questionnaire PSPQ were mailed to the physiotherapist. Almost 90 physiotherapists responded with 23 male and 67 female. The study indicated that several physiotherapists experimented psychological

interventions during sports injured persons rehabilitation, It highlight the importance of psychological rehabilitation teachings during physiotherapy program. It also says that relationship of referral should be formed among sports psychologists and physiotherapists. (Hemmings, B. J., & Povey, L. 2002)

On the bases of study given by Monna Arvinen-Barrow, Gillian Penny et al in 2010 with aim to evaluate the individual understanding of physiotherapist regarding using psychological procedures in sports injured persons, a qualitative study was conducted comprising semi structured interview through interpretative phenomenological analysis. Population of 7 physiotherapist was included, 3 men and 4 women. The finding indicates that physiotherapists confessed decrease competence in utilizing psychological rehabilitation of sports injured persons and its beneficial for the physiotherapists to improve skills and knowledge in psychological interventions. (Arvinen-Barrow, M., Penny, G. N., Hemmings, B. A., & Corr, S. [2010](#))

This study was carried out by Courtney B. Albinson and Trent A. Petrie in 2003. The purpose of the study was to evaluate the effects of psychological conditions like stress, coping, cognitive appraisal model and adherence to rehabilitation before and after injury. A prospective study was done on 84 sportsmen who were football players out of which 19 were injured. 1 sportsman injury was severe abandoning his carrier was excluded, post injury evaluation was done on 18 football players at day 1,4,7,14 and 28 and one evaluation was done to detect psychological distress before injury. It reveals that destructive mood problems and stress were evident after injuries which were poorly managed by sports injured person on 7th day, positive improvement was observed on 14th and 28th day but 28th day involve decrease cognitive managing. The research gave positive response towards cognitive-appraisal model. (Albinson, C. B., & Petrie, T. A. [2003](#)).

A research by Ninedek, Alana; Kolt et al in August 2000 was done with the purpose to find out the views of physiotherapists about the

significance of psychological rehabilitation in sports injured persons and how sportspersons response to injury. A population was taken of 150 physiotherapists and views were taken through questionnaire named as sports physiotherapist's views on psychological strategies questionnaire. The research concluded that physiotherapists can deal with psychological issues related to injury and while formulating a rehabilitation program for sports injured persons physiotherapists consider setting of goals, optimism, enthusiasm and communication as an integral component. (Ninedek, A., & Kelt, G. S. [2000](#)).

An interview oriented study was done by Niven A in May 2007 to improve the knowledge of problems related to adherence physiotherapists face during their clinical practice and what tactics can be utilize to enrich adherence. 9 physiotherapists participated in the interview including 3 male and 6 female. it was found from the views of physiotherapists that self-initiated actions of sports person to improve wellbeing can impact rehabilitation process. Adherence has a positive impact on injury recovery and adherence towards rehabilitation is assisted and prohibited by factors like sports person characteristics, characteristics of particular situation and injury characteristics. (Niven, A. [2007](#))

A qualitative study was conducted by Marshall A , Donovan-Hall M et al in February 2012 on the topic of what sports persons think are elements that impact their obedience to rehabilitation program by physiotherapists. Eight sports persons were interviewed including three female and five male. The interview revealed that the techniques and interventions used by physiotherapists influence the sports injured person devotion to rehabilitation. Sports injured persons personal elements like effect of injury on injured sports person and sports person own plans also influence the rehabilitation program. (Marshall, A. W., Donovan-Hall, M., & Ryall, S. [2012](#))

Tracey J conducted a research in November 2008 to know what the sports trainer and

physiotherapists think about their part in psychological rehabilitation for recovery of sports injured persons. 18 people out of which 1 was sports trainer and 17 were physiotherapists participated in data collection through interview in a qualitative study. They concluded that physiotherapists and sports trainer recognize their worth in healthy contribution in psychological rehabilitation of sports injured persons but also confessed of lack of professionalism in psychology. (Tracey, J. [2008](#))

A study was conducted by Caroline Heaney in February 2011. The aim of the study was to find the what the views are hold by physiotherapist regarding using techniques of psychological rehabilitation in sports injured person. The researchers target population was physiotherapists working with soccer players. 39 physiotherapists participated in the research through Physiotherapists and sports psychology questionnaire (PSPQ). Among these 39 physiotherapist 10 also participated in semi structured interview. The result says that stress and anxiety are the most common conditions encountered by physiotherapists in sports injured persons. 51% physiotherapists used referral system and recommend the sports injured persons to psychologist. It emphasize that as concerning a psychologists due to mental issues is usually considered taboo, awareness should be increase regarding referral system in sports psychology. (Heaney, C. [2006](#)).

M.E. Lafferty, R Kenyon et al presented a study which got published in ([2008](#)) with the aim to find whether any variance exist between physiotherapist who are club affiliated and those who are not club affiliated while treating sports related Injuries. Data was collected through ATSPQ called as Athletic Training and Sports Psychology Questionnaire from 87 physiotherapists among them 45 was club affiliated and 42 were not club affiliated. The theory presented the result that sports injured person who are treated by club affiliated physiotherapists are usually treated through setting goals and physiotherapists who are not club affiliated have more understanding of

psychological rehabilitation and have increase success rate in decreasing anxiety and stress. (Lafferty, M. E., Kenyon, R., & Wright, C. [2008](#)).

A qualitative study was done by Monna Arvinen-Barrow, William V. Massey et al in 2014 with purpose to determine what sports injured person perceive about the psychological rehabilitation in sports related injury done by clinical sports practitioners like sports physiotherapist and others. Semi structured interview provided the data from 10 sportsmen who were rugby and football players. It was concluded from the interview that although sports persons perceive injury as part of their sporting life but they undergo depression and anxiety post injury during rehabilitation so they think that clinical sports practitioner should have ability to deal with such conditions and develop understanding of the psychological interventions to be implemented to relief the sportsperson after injury. (Arvinen-Barrow, M., Massey, W. A., & Hemmings, B. A. [2014](#)).

This research was carried out by David Lavalley, Des Jennings et al in 2012 with the aim to find what the sportsperson approach regarding pursuing psychological advice and psychological rehabilitation. Target population were 240 sportspersons from Ireland who answered through Sports Psychology Attitude – Revised (SPA-R) Questionnaire. The research came with the conclusion that sportsperson regard psychological interventions as chief element in rehabilitation and have a optimistic understanding towards it. They put their weight in favor of psychological rehabilitation but complained absence of easy contact with the concerned medical professional. It also emphasizes the need of increasing skills and awareness about psychological aspect of treatment procedures. (Lavalley, D., Jennings, D., Anderson, A. G., & Martin, S. T. [2005](#)).

A study with the aim to determine the psychological state of mind of sports injured person and what variations they undergo during rehabilitation process was carried out by Ann M. Quinn and Barry J. Fallon in 2008. Data was obtained through multi variate analysis of

variance commonly called as MANOVA which was used to find the mean difference of 136 sports injured person at different stages ranging from at the time of injury, at the time of fractional recovery, at the time of half recovery and at the time of complete recovery. The results of the study say that sports person psychological condition throughout different steps of recovery have a great impact during the process of rehabilitation. It says that alterations occur throughout the recovery process at repeated interval and more positive attitude and improve psychological state of mind was observed at the end of the recovery period. (Quinn, A., & Fallon, B. J. [1999](#)).

This study was carried out by Damien Clement, Megan D Granquist et al in 2013 to find out how sports trainer view the psychological reactions sports person shows after injury and what techniques they prefer if they carry psychological rehabilitation of sports injured persons. Athlete Training and Sports Psychology Questionnaire was used for collection of data from 215 sports persons out of which 129 were women and 86 were men. The result showed that initial reactions to injury mostly include stress, anxiety and anger. It says that sports person can overcome from early psychological conditions like anxiety and stress through

adherence, counseling the patient through good communication skills and enthusiasm by sports trainer. (Clement, D., Granquist, M. D., & Arvinen-Barrow, M. [2013](#)).

Conclusion

The study shows that physiotherapists have positive attitude towards the psychological rehabilitation after sports injuries and consider it important to provide psychological rehabilitation to patient with sports related injuries. It showed that the majority of physiotherapists working in university and hospitals of Hyderabad, Karachi and Nawabshah encountered with sports injured patients with psychological issues and majority of physiotherapist confirmed using various techniques for psychological rehabilitation.

Suggestions

The experience of physiotherapists in using psychological techniques for psychological rehabilitation should be established in more detail in order to explore more positive aspects. Furthermore there is more potential need for the training of the physiotherapists to use psychological interventions in their practice should be more explored. It is also suggestion that study may be conducted on large sample size and physician included in the further study.

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