

***Psychological Factors Facilitative to Sports Injury Rehabilitation Adherence Among Filipino Injured Athletes: A Basis for Intervention Program***

Denise F. Ang, Philippine Sports Commission, Philippines  
Clarissa Delariarte, Far Eastern University, Philippines

The Asian Conference on Psychology & the Behavioral Sciences 2023  
Official Conference Proceedings

**Abstract**

Injury is a detrimental event in an athlete's life that has been happening for years now in Philippine Sports. The way an athlete copes varies from one to another, as they are not just posed with the goal of physical recovery. They also highly face psychological consequences that affect their behavior toward rehabilitation programs. The impact of their rehabilitation adherence determines whether they can be able to successfully return to play or experience re-injury. The purpose of the study was to determine if the psychological factors: Motivation, Social Support, Self-Efficacy and Mental Toughness served as predictors in aiding an athlete's Rehabilitation Adherence. A predictive and non-experimental quantitative research was implemented. Eighty-Seven (87) Filipino Injured Athletes participated in the conduct of study who have been undergoing their rehabilitation programs at Philippine Sports Commission-Sports Rehabilitation Unit. Results showed that the: (1) Identified Regulation in the Motivation Subscale (2) Intrinsic Regulation in the Motivation Subscale (3) Confidence in the Mental Toughness Subscale were positive and significantly correlated with Rehabilitation Adherence. Consequently, the Confidence Subscale of Mental Toughness was the best predictor of Rehabilitation Adherence. Identified Regulation and Amotivation of Motivation Subscale were also predictors. This concluded that when athletes develop a strong sense of these psychological factors, we can ensure a better understanding of their rehabilitation goals, as well as better adherence, would be an expected outcome. The researcher used these results and findings of the study as the basis for a well-facilitated psychological intervention program for Filipino Injured Athletes.

Keywords: Sports, Psychology, Injury

**iafor**

The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## **Introduction**

Filipinos have long held sports as a valuable aspect in their lives and culture. The countries' first participation in an international competition was as early as 1913 in the Far Eastern Games. With this huge undertaking, Filipino athletes continue to bring honor, rise above the circumstances, hone their values and learning, and bring this to good influence and responsible citizenship. While it bolsters personal and national competence, it was not an easy journey. One of the most faced challenges in Philippine Sports was the occurrence of injury during play. While these elite athletes had spent over a thousand hours in training, they still had a much higher risk of injury than normal exercisers (Brewer, 2009). Thus, when athletes experienced injury, their sport ethic came in. Evidently, this was the strong identification of the role of athletes which may be difficult, especially in the phase of injury. It pushed them to be tolerant of the possibility of reinjury because they highly believed that this was their sustainable action to continue to play and maintain their part as a Philippine National Athlete. This mentality was somehow challenged by their national coaches, fans, media coverages, who were highly expectant and emphasized the need to play despite the pain or aim for gold. Whether big or small, it did not stop them, as they toughed it out because the strength of the competition hardly matters (Madu, 2014).

Furthermore, Filipino injured athletes tended to be impatient to return to sport because their competitive schedules did not coincide with their recovery schedule. They felt like they had to do it. They competed and took the chance, otherwise, they could have lost their spot to someone who will take the opportunity. This cycle became the major reason for non-adherence, which was a major concern of the Sports Rehabilitation Unit of Philippine Sports Commission (PSC) as it triggered re-injury. More than that, serious psychological implications would come in as it was not properly addressed. This would then become the core reasons why Filipino Injured Athletes seek counseling sessions with the Sports Psychology Unit of the Philippine Sports Commission (PSC) because of their frustration as it had been affecting play.

### ***Purpose***

Aligning with the PSC Sports Rehabilitation Unit's goals which were to rehabilitate, put injured athletes back in their pre-injured state, and improve present physical condition, they also intended to promote injury prevention and education. With this, the researcher aimed to overcome the challenges of rehabilitation non-adherence among Filipino Injured Athletes through identified psychological factors that are held valuable in their recovery.

### ***Theoretical Framework***

The study was anchored on the Grounded Theory of Psychological Resilience with the integration of Self-Determination Theory and Self-Efficacy Theory which were deemed appropriate in exploring psychological key processes and dimensions on rehabilitation adherence and return to sport after an injury. It uncovered and created a predictive model that would affect rehabilitation adherence among Filipino injured athletes provided with targeted psychological factors such as one's Motivation, Self-Efficacy, Mental Toughness, and Social Support that helped them realize that playing with pain was detrimental but taking care of oneself holistically was a much better way to serve the country through sports.

## Method

Given the research objectives, a predictive non - experimental quantitative research design was deemed appropriate for the conduct of study. As explained by Johnson (2001), this type of non-experimental design gathered data in a specific period of time, thus what was collected from the psychological factors aimed at developing and validating a predictive model towards an improved Sports Injury Rehabilitation Adherence, hence a proposed psychological intervention program specific for Filipino injured athletes.

## Participants

It focused among the 87 Filipino Injured Athletes aging 16-33, male (49.4%) and female (50.6%) who were having their rehabilitation programs with their respective Physical therapists from Philippine Sports Commissions' Sports Rehabilitation Unit. Their injuries ranged from mild (28.7%), moderate (65.5%) and sever (5.7%).

## Data collection procedure

From there, four sets of questionnaires targeting psychological factors: Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2), General Self-Efficacy Scale (GSE), Mental Toughness Questionnaire (MTQ) and Multidimensional Scale of Perceived Social Support (MDSPSS) were being floated among Filipino Injured Athletes. Afterwards, data analysis was conducted through the use of descriptive statistics, correlation analysis, ANCOVA and enter method regression analysis. More so, it attempted to answer the following two major research questions:

1. What are the Psychological Factors that are predictive of Sports Injury Rehabilitation Adherence?
2. Based on the predictive model of the study, what psychological interventions are recommended to enhance the rehabilitation program of Filipino Injured Athletes?

## Results

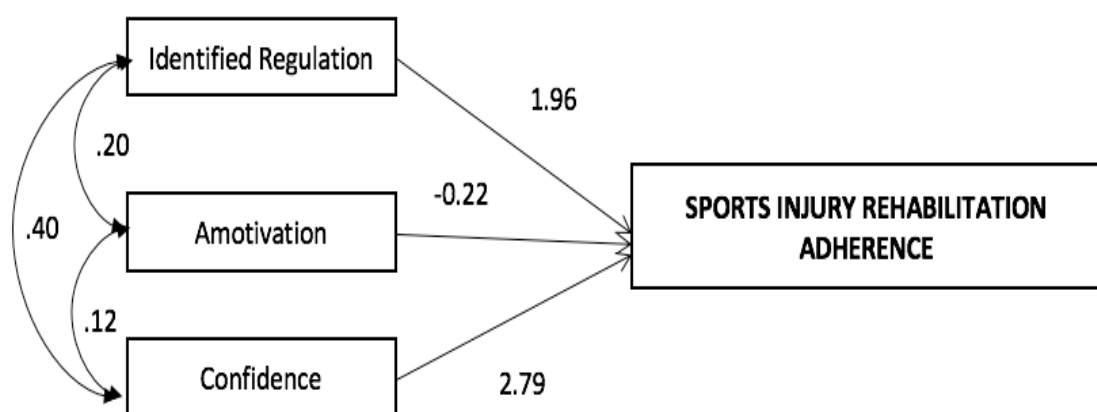


Figure 1. Regression Model of the Predictors of sports injury Rehabilitation Adherence (Rehabilitation Adherence)

Two models were computed. Model 1 computing all the profiles and of the subscales as predictors. Model 2 computing all of the profiles and the total scores as predictors. Model 1

yielded the best results. The coefficient of determination as measured by  $R^2(\text{adj}) = 0.68$ , showed that 68% of the changes in rehabilitation adherence can be explained by the regression model. However, there may be 3% changes in the variance which can be explained by other factors not included in the model. Anova p-value  $<.001$  shows a good model fit. *Confidence Subscale of Mental Toughness* was the best predictor at  $\beta=2.79$ ,  $p < 0.05$ . Identified Regulation subscale of Motivation was also a significant predictor at  $\beta=1.96$ ,  $p < 0.05$ . Lastly, *Amotivation subscale of Motivation* was also a significant predictor at  $\beta=-0.22$ ,  $p < 0.05$ .

The decision was to reject the null hypothesis. The rest of the variables did not significantly predict rehabilitation adherence at  $p > 0.05$ .

PSYCHOLOGICAL FACTORS	PHASE OF THE PROGRAM	TIME FRAME	OBJECTIVES	PEOPLE INVOLVED	MATERIALS
All Factors: Motivation and Confidence	1. Psychological Assessment	Week 1	Needs Assessment and Future Directions	Psychometrician and Filipino Injured Athletes	Testing Materials and Progress Notes
Amotivation	2. Rebuilding One's Morale	Week 2-3	Address feelings of incompetence	Sports Psychologists, Psychometrician and Filipino Injured Athletes	Pen and Paper
Confidence	3. Confidence Restoration	Week 4-5	Self-belief management in recovery and return to play	Sports Psychologists, Psychometrician and Filipino Injured Athletes	Pen and Paper
Identified Regulation	4. Identifying the Importance of Rehabilitation	Week 6-7	Building strong commitment to rehabilitation	Sports Psychologists, Psychometrician, Physical Therapists and Filipino Injured Athletes	Pen and Paper
Overall Well-being	5. Evaluation of Athlete's Mental Health	Week 8	Identifying the effectiveness of the program and further directions	Sports Psychologists, Psychometrician and Filipino Injured Athletes	Testing Materials and Progress Notes

Table 1. Matrix of the Proposed Mental Recovery Program for Filipino Injured Athletes covers a eight (8) week intervention phase with the predictive variables

Implementing an intervention program specific for Filipino Injured Athletes was important especially if it ensured to 1) target their specific behaviors that needs to be maintained, change or eliminated 2) identify factors that influence their behaviors 3) educate about their problem and goal needed to be accomplished 4) modify current gaps from the previously implemented programs. With these in mind, it can strengthen their recovery phase especially incorporating major psychological factors such as in the aspect of: *Motivation specific to Identified Regulation and handling Amotivation, and Self-Confidence building.*

## Conclusion

The Filipino Injured athletes showed an average level of Rehabilitation Adherence, however it was important to put emphasis that the goal of the PSC Rehabilitation Unit and the PSC Sports Psychology Unit was to achieve high levels of Rehabilitation Adherence. Per say,

athletes who do not show up for a few sessions in a 12-week program should not be tolerated as it will only pose the risk of re-injury if there is no completion.

Filipino Injured Athletes need to dedicate their complete compliance for them to be able to achieve an optimal performance in their sport when they return and compete again. Filipino Injured Athletes need to fully understand that missing an appointment with their physical therapists, or not reaching up to the last phase, which was the Function Stage, would only be detrimental and just continuously expose them to more physical pain and limitations. Filipino Injured Athletes should also learn how to reach full acceptance that for some time, they will have to invest so much in recovery, rather than training a certain skill. This would mean being apart from teammates, a change of routine, and most importantly a revisitation of athletic goals. This implementation will be the future directions and goals of the PSC Sports Psychology Unit in terms of handling the psychological implications and preparations of Filipino Injured Athletes.

Moreover, this should also be well coordinated with their respective coaches so as to set elite standards of rehabilitation. With psychological factors identified as Motivation specific to Identified Regulation, Amotivation, and Confidence that were seen to be good predictors, this should be a robust move towards achieving high levels of Rehabilitation Adherence in Philippine Sports which should also be in line with the goal of injury prevention.

## References

- Brewer, et. al (2003). Age-Related Differences in Predictors of Adherence to Rehabilitation After Anterior Cruciate Ligament Reconstruction. *Apr-Jun*; 38(2): 158–162.
- Madu (2014). Why do athletes play through injury? Retrieved from:  
<https://www.sbnation.com/soccer/2014/11/12/7188643/why-do-athletes-play-through-injury>
- Podlog (2007). The psychosocial aspects of a return to sport following serious injury: A review of the literature from a self-determination perspective. *aSchool of Human Movement Studies, Charles Sturt University, Panorama Avenue, Bathurst, NSW 2795, Australia Educational Psychology and Learning Systems, Florida State University, 307 Stone Building, Tallahassee, FL, 32306, USA.*
- Podlog (2013). Injury Rehabilitation Overadherence: Preliminary Scale Validation and Relationships With Athletic Identity and Self-Presentation Concerns.  
doi:10.4085/1062-6050-48.2.20

**Contact email:** ang.denise@yahoo.com.ph