Factors Influencing Personal Growth Initiative in Athletes With Disabilities (Para-Athletes): Scoping Review

Afif Kurniawan and Suryanto
Faculty of Psychology, Universitas Airlangga, Surabaya, Indonesia
afif.kurniawan@psikologi.unair.ac.id, suryanto@psikologi.unair.ac.id

Keywords: Athlete, Disability, Personal Growth Initiative, Psychology, Sport

Abstract: Although a lot of evidence has emerged from previous research studies showing that athletes with disabilities (Para-Athletes) do not have too many differences with non-disabled athletes in the aspects of social, emotional development, and personality characteristics. However, several limited studies show that Para-Athletes are still treated differently and receive treatment such as discrimination, difficult or limited access, isolation, and socio-economic problems. Para-athletes need no pity from those gifted with perfection. They want equal opportunities to compete and focus on developing their potential. This systematic review aims to synthesize the factors that influence the Para-Athlete *personal growth initiative* in Indonesia. We followed and used a protocol of selected reporting items for the PRISMA systematic review. Database regarding PGI in Para-Athletes searched. In total, 25 studies that met the inclusion criteria were reviewed in this study. After completing the thematic analysis of existing studies, it was found that the existing factors in athletes such as attitude, self-acceptance, willingness to change, formation of self-esteem/self-concept, and self-determination influence PGI. Several other factors emerge as having more complex influences, namely meaningfulness and life satisfaction, as well as psychological well-being. This illustrates that PGI emerges as a factor supporting the success of para-athletes in life and careers as athletes. Several recommendations from the systematic review report emerged as material for consideration for use in further research.

1 BACKGROUND

Equal opportunity to exercise for individuals with disabilities has continued to increase in recent years. In a study conducted by March L Krote in the early 1980s, on Cross-Cultural Analysis of the Pervasiveness of Sport, he noted an expansion in individual and group involvement and interest in sport, both in recreational and achievement settings. In his writings, he stated that the more people involved in participating in sports, the greater the number of female athletes, the more athletes with disabilities appear, and sports participation is not limited by age. With this description, it can be concluded that sport is an activity that is carried out by anyone under any circumstances. (Krotee, 1979).

Since then, many studies have been conducted that focus on individual involvement in sports activities in various areas or settings. This is no exception for athletes with disabilities. Research on the psychosocial aspects of sports participation in persons with disabilities began recently. Since March Krote's article was published, research on athletes with disabilities has only received attention in the last twenty years (Martin, Malone, & Hilyer, 2011).

It is quite difficult to find the characteristics and psychosocial problems of athletes with disabilities, especially for those who appear at the Elite / Paralympic level.

The Paralympic Games or Paralympics which took place in London in 2012 were the largest to date, involving 4,200 athletes from 160 countries competing in 20 different sports. According to IPC (2012), at that time the athletes who would compete in the Paralympics had various types of disabilities. For this reason, the International Paralympic Committee (2012) classifies ten classifications of disabilities that qualify for participation, namely:

a. impaired muscle strength
b. passive range of motion disorders
c. leg deficiency
d. length difference

Kurniawan, A., & Suryanto
Factors Influencing *Personal Growth Initiative* in Athletes with Disabilities (Para-Athletes): Scoping Review
In *Proceeding of the International Conference on Current Advancement in Psychology (ICCAP) 2022 - Psychology for Sustainable Recovery in the Life after the Pandemic,* page 215-221

e. short stature
f. hypertonia
g. ataxia
h. athetosis
i. visual disturbances
j. intellectual disorder

With the development of Paralympic sports competition activities and all the preparations made for athletes to be involved in them, it becomes increasingly important to understand how they do their best and show their abilities, by conducting a holistic review of both attributes, namely biomechanics and psychosocial.

Several reviews of disability and sport have been conducted in the psychosocial literature. However, throughout the search conducted, researchers have not found any articles that specifically identify Paralympic athletes. In a related investigation, Bragaru et al. (2011) conducted a review of amputations and sports injuries. Their review focuses exclusively on limb amputations and participation in sports in that condition. Physiological analyses were performed, such as biomechanics, cardiopulmonary function, sports participation, sports injuries, and psychological factors. Apart from the limitations of the study which were also mentioned by the authors in their manuscript, they succeeded in identifying the psychological factors of athletes with amputations. Bragaru et al. (2011) also argued that sports participation appears to be hindered to some extent, and most of these are biomedical issues such as unavailability of suitable prostheses, poor performance or high cost of prostheses, inadequate facilities, or lack of access to information. This further proves that the challenges in sports participation at the elite para-athlete level are becoming increasingly visible.

For many para-athletes, involvement in performance sports also requires assistive technology and high-specification equipment, such as basketball in special wheelchairs, and hockey equipment, and athletes with impaired lower limb function, must compete using permitted assistive technologiesAccordingto existing standards. Thus, an athlete also requires special adaptations and abilities to provide, prepare, and use these equipment (Gallagher & Desmond, 2007).

On the psychosocial side, athletes face unique challenges in their daily lives as human beings in general. Athletes do not live in narrow spaces where disability is a barrier. However, it must be acknowledged that factors of personal life, family, and social support directly and indirectly contribute to supporting, or even limiting their sporting success. Martin (2015) wrote one of the results of his research on the determinants of the behavior of athletes with disabilities. In the opening section, he cites an example where a disabled athlete experienced challenges while traveling to an international competition. This occurs in seemingly simple forms, such as using airport bathrooms with doors too narrow to fit a wheelchair, limited access and support personnel, or lack of other means of support. This will still be added to the feeling of stress that comes from the uncertainty of the classification results, where the athletes wait or wonder whether the *classifier* has done the right task and the right results will come out. Generally, they will share their feelings with their roommates (Martin, 2015).

In facing these challenges and pressures, athletes still use general psychological skills to achieve optimal conditions within themselves, such as conducting regulation through goal setting and positive self-talk, or simple breathing relaxation exercises to relieve anxiety. However, not all of them are successful. This was found difficult for some para-athletes because not all of them have the initiative to make a conscious effort to overcome the obstacles and challenges they face, both in training settings, competitions, and in everyday life. In fact, in previous research by Vealey (1988), a model has been described that shows the importance of self-determination, self-awareness, and self-esteem. All three are referred to as positive characters who play an important role in the growth of personal growth and support their performance (Vealey, 1988).

Furthermore, he also explained that for athletes who are trying to manage their abilities and life challenges, sports or competitions are 'vehicles' that help them overcome feelings of helplessness, thus making them more confident (Asch, 1984). They will grow up in a better environment, full of support, and feel accepted by others. The decisive aspect in this situation is the existence of the Problem Growth Initiative, which is defined as the individual's active involvement in the process of growing in life (Martin & Mushett, 1996; Martin & Smith, 2002).

Based on this background, this scoping review was conducted to answer the following questions:

1. How is the development of research on PGI in athletes/athletes/persons with disabilities until 2022?
2. What is the position of PGI and what are the factors around it, especially in the context you want to study?
3. In what contexts has PGI research been carried

out?

4. Do para-athletes see sport as an opportunity to break out of antecedent conditions?
5. On the personal side, as persons with disabilities, how should they live life and continue to grow (growth)?

Based on the research questions, the objectives set in conducting this *scoping review* are:

1. Identify the development of definitions, key concepts, and position of PGI to date (2022).
2. Identify the theoretical concepts behind PGI.
3. Identify the context of the research subject.

From the research questions and formulated objectives, the PCC formula is obtained as follows:
Population = Athletes with Disabilities / Para Athletes
Concept = *Personal Growth Initiative*
Context = Para-Sport

2 METHOD

The search strategy of the four main databases for relevant literature was initially carried out by using Google Scholar to identify articles that might not be indexed in the database. Initial searches using only 'personal growth initiative' or PGI and 'disability' keys proved too narrow to yield results. Very few findings were found. To capture studies involving paralympic athletes that might not be indexed, the search was broadened to include the terms 'para-athlete' and 'disabled', to specific terms such as 'wheelchair'.

Common wildcards, truncation, and misspellings for the words Paralympian / Paralympic are also used to maximize results. Appropriate search criteria include:

- Scopus: (("Personal Growth Initiative" OR PGI) ("personal growth initiative" AND "disability") (“wheelchair” and “Paralympics”)
- Web of Science: ((paralymp* or para-lymp* or para-olymp* or paraolymp* or (athlete* and disab*)) and (psych* or soc*))
- ScienceDirect: (paralymp* or para-lymp* or paraolymp* or para-olymp* or (athlete* and disabled*))

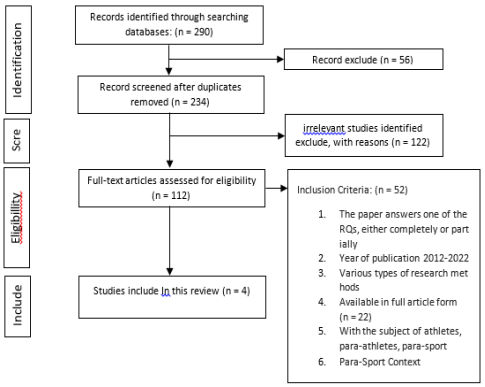

Figure 1. Literature selection chart.

Inclusion criteria focus on the factors and conditions that need to exist which will be used as the basis for selecting papers to be used as the main study, while the criteria are as follows:

1. The paper answers one of the research questions, either completely or in part
2. Year of publication 2012-2022
3. Various types of research methods
4. Available in full article form
5. The subject of athletes, persons with disabilities, para-athletes
6. Sports context

Exclusion criteria will focus on factors and conditions that cause articles to be excluded from the list of main studies. These criteria are mentioned below:

1. The paper does not answer the RQ partially or completely
2. Full papers cannot be accessed
3. Subjects are not athletes, persons with disabilities, para-athletes
4. Is a book or magazine
5. Publication date prior to 2012
6. Studies are duplicates of studies on different databases

As seen in the figure, a total of 290 articles were found as initial data obtained from searching 3 sources. Next, the researcher examines the abstracts and types of articles to eliminate duplicate data, or those that indicate duplication of data. This reduces the data to 234. Next, the researcher conducts an examination to remove or cross out irrelevant articles. The results obtained for a total of 122 articles are irrelevant, because they are not research articles, are only in the form of abstracts, or are completely unrelated to context. Thus, a total of 112 articles were followed up for eligibility checks. In the final stage, the researcher narrowed the number

of existing articles using inclusion and exclusion criteria. There were 52 articles that were continued in the inspection process using the inclusion criteria. After looking at the six existing criteria, only four study articles were found that were truly appropriate and would be used in the review.

Based on the final search results, four papers suitable for review were found, most of which were quantitative in nature. Ritchie et al. (2014) and Percy, Kostere, & Kostere (2015) confirmed that thematic data analysis is a common technique for identifying, analyzing, and reporting patterns across data. The researcher follows six steps when synthesizing the data, using thematic analysis, where the researcher tries to repeatedly examine the data by reading it over and over again. At the same time, the researcher begins to compile the initial code from the data referring to the research question. The method of systematic classification and identification of meaningful data related to primary and secondary research questions is referred to as coding (Braun & Clarke, 2006). The third stage includes a theme search to identify what is relevant to the theme and what is not. We include any references to the factors that make computer-based learning effective. This prepared the groundwork for us to begin the analysis of the findings. In the fourth stage, we search for data that supports answers to research questions. During this process, some of the themes that emerged before were examined in smaller units.

Then in the fifth phase, we define and name each theme and the data collected using tables. Examination of this data is carried out over a fairly long time, to check in detail. Several discussions with professional colleagues were also conducted to reduce bias. The four articles examined in this systematic review study are profiled in Appendix.

Table 1. Comparison of Main Components of Psychological Welfare of Paralympic Athletes with Normative Values by (Kokun, 2018).

Scales	Paralympic Athletes (N= 106)		Normative Values			
			Men (20-35 years)		Women (20-35 years)	
	X	Xs	X	Xs	X	Xs
Positive relations with others	59,2	9,5	63	7,12	65	8,28
Autonomy	56,8	10	56	6,86	58	7,31
Environmental Mastery	58,9	7,5	57	6,27	58	7.35
Personal Growth	61,2	7,2	65	4.94	65	6.04
Purpose in Life	64,8	8,8	63	5,16	64	8,19
Self-acceptance	57,8	8,1	59	6.99	61	9.08

3 DISCUSSION RESULT

3.1 Results

After completing the thematic analysis of the studies used, several results can be explained.

A. Theme 1: Performance Determinants of Disabled Athletes

1) Self Determination

Summed up as an aspect that refers to the ability of para-athletes to manage their own lives. Sport can be a means of self-determination because individuals with disabilities often report feelings of helplessness (Asch, 1986). Disability sports can be an effective way to develop self-confidence (Greenwood, Dzewaltowski, & French, 1990) and enhance friendships (Martin & Mushett, 1996; Martin & Smith, 2002), especially for women.

2) Self Awareness

Self-awareness is self-knowledge of one's feelings, thoughts, and behavior (Ravizza, 1998). Helping athletes develop self-awareness about what motivates them can lead to personal growth. Athletes with disabilities may have very complex motivations. For example, athletes may use sports to adapt to their disability (Kirkby, 1995), as a means of self-advocacy (Martin & Mushett, 1996), to combat marginalization (Wheeler et al., 1996) and to promote disability sports movements (Asken, 1991).

3) Self Esteem

Researchers have shown that athletes have adequate self-esteem (Hutzler & Bar-Eli, 1993; Martin, 1999) and that sports participation contributes to increased self-esteem (Greenwood, Dzewaltowski, & French, 1990).

B. Theme 2: Psychosocial Problems in Athletes with Disabilities

Concerning the biomechanical aspect of the Paralympian, the psychosocial literature in this area is sufficient and is distributed in slices with other themes. Nonetheless, an understanding of the psychosocial profile of these disabled elite athletes can complement existing physiological and technological knowledge in enabling a holistic view of what can contribute to the success of Paralympic athletes and can facilitate teams working to optimize performance and well-being in these high places. - individual performance. An understanding of the psychological profile of paralympic athletes is needed to facilitate their needs and optimize their performance as athletes, as well as general psychological well-being.

In general, the psychosocial problems or problems faced by athletes are divided into two

major areas, namely the area of training and competition performance, and the role of human beings in the life of the general public. The results of the thematic analysis and examination of the literature identify several aspects related to how an athlete tries to adapt to challenges and psychosocial problems. These aspects are developed together with other psychological skills to support psychological performance and well-being. grouped. These aspects consist of 1) participation, motivation, and goals (goals setting); 2) mental imagery; 3) stress and coping; 4) personality; 5) attitudes towards other disabled-bodied athlete groups; 6) knowledge and attitudes towards substances; and 7) transition to retirement.

C. Theme 3: Personal Growth as a Key Factor

Personal Growth appears in several themes and is positioned as a positive individual growth stage, to respond to the challenges and obstacles faced by athletes. In Table 2, it can be seen that personal growth is an aspect that is measured together with 5 other indicators in Ryff's Psychological Well-being Scale (Kokun, 2018). Even though it doesn't seem to show a significant difference between the results of identification of personal growth in athletes with disabilities when compared to athletes without disabilities, it is clearly stated that the presence of personal growth in individuals is key for athletes to develop some positive responses. An athlete, especially an athlete with a disability, needs to build positive characteristics to deal with all the psychosocial challenges and problems they have. Having initiative and involvement in growth will help athletes achieve high performance along with the psychological well-being that will make them successful and happy. We call this the *Personal Growth Initiative* (PGI). *Personal Growth Initiative* (individual initiative to grow) is a conscious and active process, the individual will seek change with certain intentions so that he becomes a better person than before (Robitschek et al., 2012). In the sports context, this will be a finding that supports the success of athletes, if it can later be continued in model analysis, to psychological interventions.

3.2 Discussion

Based on the analysis conducted on the literature reviewed, it appears that there are two factors, both internal and external, which form the basis of athlete skills to achieve achievements or improve performance. All of them are directly related to what is known as Positive Character, in which encouragement or initiative to grow is a key factor. To make it easier to examine the findings, the researcher compiled a chart that can be seen in the following figure:

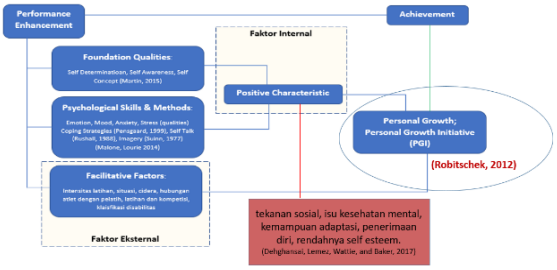

Figure 2. Diagram of the Literature Review Results.

4 CONCLUSION

Based on the findings obtained through an analysis conducted using theme mapping and identification using charts, it appears that athletes with disabilities or para-athletes need psychological skills to support their success, both in improving performance and in everyday life. Para-athletes are expected to be able to develop positive character. This character is formed through several basic skills such as *self-esteem*, *self-awareness*, and also *self-determination*. Athletes with disabilities strive to align these three skills. This is done to keep them from things that can reduce or hinder their abilities. Athletes with disabilities will be faced with other external factors which are identified as pressure or psychological stress which do not only come from training and competition situations but can also come from everyday life.

Thus, an athlete with disabilities who wants to succeed, requires a specific aspect, namely personal growth. *Personal Growth* is one of the dimensions of Ryff's welfare scale, even though *personal growth* is unlikely to become a skill if it is not initiated by the athlete's initiative to be involved in identifying deficiencies, and willing to develop and consistently place themselves in a process to grow. This is known as *the Personal Growth Initiative* or PGI.

Identification of the PGI model and analysis of the factors in it are expected to be able to support the success of athletes with disabilities in Indonesia in achieving achievements in multi-events at both the ASEAN ASIAN and OLYMPIC levels.

The weakness of this study is that there are still limited references that can be used as references. *Second,* not much literature or previous research has identified psychosocial problems specifically in athletes with disabilities in Indonesia. Although

many previous studies have been found in international journals, many of these journals and research use countries that have been actively involved in the Olympics for a long time, with advanced sports management, such as Ukraine, Iran, Brazil, Russia, and so on to map the social problems faced by athletes with disabilities. Preliminary studies on the identification of psychosocial problems in athletes with disabilities in Indonesia are suggested to be carried out so that the studies become more specific and can later have the right *impact.*

REFERENCE

Asch, A. (1984). The experience of disability: A challenge for psychology. *American Psychologist*, *39*(5), 529.

Asken, M.J. (1991). The challenge of the physically challenged: Delivering sport psychology services to physically disabled athletes. *The Sport Psychologist, 5*, 370–381.

Bragaru, M., Dekker, R., Geertzen, J. H., & Dijkstra, P. U. (2011). Amputees and sports: a systematic review. *Sports medicine*, *41*, 721-740.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101.

Gallagher, P., & Desmond, D. (2007). Measuring quality of life in prosthetic practice: benefits and challenges. *Prosthetics and Orthotics International*, *31*(2), 167-176.

Greenwood, C. M., Dzewaltowski, D. A., & French, R. (1990). Self-efficacy and psychological well-being of wheelchair tennis participants and wheelchair nontennis participants. *Adapted Physical Activity Quarterly*, *7*(1), 12-21.

Hutzter, Y., & Bar-Eli, M. (1993). Psychological benefits of sports for disabled people: A review. *Scandinavian Journal of Medicine & Science in Sports*, *3*(4), 217-228.

International Paralympic Committee. (2012). *History of the Paralympic movement*. Retrieved April 25, 2012. Retrieved from http://oldwebsite.paralympic.org/export/sites/default/Media_Centre/Media_Information/2008_07_Paralympic_History_long.pdf

Kirkby, R. J. (1995). Wheelchair netball: Motives and attitudes of competitors with and without disabilities. *Australian Psychologist*, *30*(2), 109-112.

Kokun, O. M., Baranauskienė, I., & Shamych, O. M. (2018). The influence of sports on paralympic athletes' personal development. *Social Welfare: Interdisciplinary Approach*, *8*(1), 124-131.

Krotee, M. L. (1979). A Cross-Cultural Analysis of the Pervasiveness of Sport and Physical Activity: Partners in Sport and Physical Education,(Elsewhere in the World). *Physical Educator*, *36*(3), 149.

Martin, J. J. (1999). A personal development model of sport psychology for athletes with disabilities. *Journal of Applied Sport Psychology*, *11*(2), 181-193. doi:10.1080/10413209908404199

Martin, J. J. (2015). Determinants of elite disability sport performance. *Kinesiology Review*, *4*(1), 91-98.

Martin, J. (2012). Mental preparation for the 2014 Winter Paralympic Games. *Clinical Journal of Sport Medicine*, *22*(1), 70-73.

Martin, J. J., Malone, L. A., & Hilyer, J. C. (2011). Personality and mood in women's Paralympic basketball champions. *Journal of Clinical Sport Psychology*, *5*(3), 197-210.

Martin, J. J., & Mushett, C. A. (1996). Social support mechanisms among athletes with disabilities. *Adapted Physical Activity Quarterly*, *13*(1), 74-83.

Martin, J. J., & Smith, K. L. (2002). *Psychological dynamics of disability and sport*. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, applications, and issues* (pp. 361-384). John Wiley & Sons.

Percy, W. H., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *The qualitative report*, *20*(2), 76-85.

Ravizza, K. (1998). *Humanistic psychology and sport: A critical review*. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, applications, and issues* (pp. 246-257). John Wiley & Sons.

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2014). *Qualitative research practice: A guide for social science students and researchers (2nd ed.)*. SAGE Publications.

Robitschek, C., Ashton, M. W., Spering, C. C., Geiger, N., Byers, D., Schotts, G. C., & Thoen, M. A. (2012). Development and psychometric evaluation of the Personal Growth Initiative Scale–II. *Journal of Counseling Psychology*, *59*(2), 274.

Vealey, R. S. (1988). Future directions in psychological skills training. *The sport psychologist*, *2*(4), 318-336.

Wheeler, G. D., Malone, L. A., VanVlack, S., Nelson, E. R., & Steadward, R. D. (1996). Retirement from disability sport: A pilot study. *Adapted physical activity quarterly*, *13*(4), 382-399.

APPENDIX

Studies	Research design	Participants and Samples	Reported Potential influence factor	Focus of the study
Martin, Jeffrey J. 2012	Personnel Developmental Model (PDM), Humanistic Model by Martin; Surveys	N = 242 athletes	Knowing the determinants of the behavior of athletes with disabilities in the Paralympic competition, because now the competition is getting tighter and more competitive, and is producing more pressure on athletes.	*A Personal Development Model of Sport Psychology for Athletes with Disabilities;* Behavioral Determinants
Martin, Jeffrey J (2015)	Qualitative Studies; Using the Vealey Model	N = 56	Vealey's model (1988) emphasizes the importance of developing *self-determination* , *self-awareness* , and *self-esteem* as positive values or characteristics that are very important for personal growth (Personal Growth) and Performance.	*Determinants of Elite Disability Sport Performance* Behavioral Determinants
Kokun, Oleg M. Baranauskine, Ingrida. Shamych, Oleksandr M (2018)	The Ryff Scales of Psychological Well-Being and S. Maddi's Personal Hardiness test	106 members of the Ukrainian Paralympic Teams 191 students with disabilities with health problems and 98 students with disabilities who are not involved in sports	The identification results obtained with the Ryff Scales of Psychological Well-Being show that the main components of the psychological well-being of Paralympic athletes are generally close to normative values. There are six (6) factors which will be explained in a separate table.	*The Influence of Sports on Paralympic Athletes' Personal Development;* Psychosocial review that accompanies the development of personal characteristics of Paralympic Athletes.
Jeffries, Philip. Gallagher, Pamela. Dunne, Simon (2012)	Systematic Review	N = 16 articles	There is still a lack of knowledge about psychological and social well-being / *psychosocial wellbeing* and other attributes in paralympic athletes, all of which can support the success of the athletes themselves	*The Paralympic Athlete: a Systematic Review of The Psychosocial Literature;* Conduct systematic reviews on psychosocial aspects and other attributes related to para-athlete performance