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How Self-Perception And Parental Involvement Correlate To Enjoyment In Playing Basketball

Novrizal Achmad Novan¹, Masayu Rizka Risjanna², Wulandari Putri³
^{1,2,3} Faculty of Physical Education and Health, Universitas Pendidikan Indonesia, Jl. DR. Setiabudi
No.229, Isola, West Java Province, 40154, Indonesia
*e-mail: novrizal@upi.edu

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Abstract

Psychological aspects, such as self-perception and parental involvement, are essential for child development and school-age basketball athlete achievements. This study aimed to determine the relationship between self-perception and parental involvement of the students and their enjoyment of playing basketball. The method used in this study was the quantitative method using a cross-sectional approach. This research was conducted in 2021. The population involved school-age basketball athletes aged 12 to 14 years from 6 Basketball Clubs in Bandung and the parents of the athletes involved in the training process. The Physical Self Perception Profile for Children (PSP-P), Parental Involvement in Sport Questionnaire (PISQ), and Source of Enjoyment in Youth Sport Questionnaire (SEYSQ-H) were the three questionnaires used in this study. Bivariate analysis of this study used the chi-square test. The chi-square test showed that the self-perception variable and parental involvement variable each had indicated a significant relationship with playing enjoyment. The results showed that $f = 45$ (37.5%) had a poor playing enjoyment and $f = 75$ (62.5%) had a reasonable playing enjoyment. Athletes who lack self-perception and parental involvement have a higher risk of experiencing less delight in playing basketball than athletes who have good self-perceptions and parental involvement.

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✉ Alamat korespondensi: Street. DR. Setiabudi No.229, Isola, West Java Province

E-mail: novrizal@upi.edu

INTRODUCTION

In sports, an individual self-perception plays an essential role in the children's psychological development. Perception is essentially a cognitive process experienced by individuals when trying to understand the

information they receive. Showing a good performance, being recognized as a good player, being part of a team, having fun playing, improving fitness, and losing weight through hard work can make school-age athletes feel tremendous and become examples

of how experiences in any aspect of our lives can determine and shape our self-perception. It is in line with how others perceive them, so that self-presentation concerns arise, such as social self-awareness, sensitivity to physical maturity levels, the need for social acceptance, and especially problems regarding their body image (Eklund & Tenenbaum, 2014). In general, self-perception is a personal attribute of self-concepts, such as skills, abilities, and physical characteristics. In sports, self-perception on movement competence can be understood as a latent construction based on subjective self-assessment of a specific single movement performance (Herrmann & Seelig, 2017). Problems regarding self-presentation, including body image, are closely associated with negative consequences, such as negative attitudes, low self-esteem, and avoidance of physical activities.

Individual participation in sports is believed to represent achievement-oriented activities where parental involvement influences children's perceptions of themselves and their playing performance (Park et al., 2017). Children participate in sports to experience fun and competition. The most crucial reason for children's involvement in sports is fun. This is a determinant of their long-term involvement and commitment to sport (Visek et al., 2018). The most significant influence on sports enjoyment and performance throughout their development is their parents' involvement. School-age children will rely more on feedback from parents and comparative social sources.

Entertainment plays an essential role in children's sports experiences and becomes the main reason why children maintain their participation in sports activities (Fraser-Thomas et al., 2008). This involvement can affect a child's sporting development, experiences, and emotions in good or bad ways (Knight and Holt, 2014).

Nowadays, parental involvement increases children's participation and performance in various fields, where children prefer broad activities, one of which is sports (Babiak & Kihl, 2018; Furusa et al., 2020). Parents become more involved in their child's sports activities, which has implications for the parent-child relationship and the complex socialization process that a child goes through (Dorsch et al., 2015). Parental support will be associated with children's enjoyment levels in sports, higher self-esteem, and evaluation of performance outcomes (Gardner et al., 2017; Laukkanen et al., 2018). It is generally agreed that parental involvement has far-reaching implications on children's motivation and enjoyment (Lev et al., 2020).

Parents face various challenges and other stressors, namely children's enjoyment of sports competitions. 81.4% of school-age children included in the analysis reported "excellent" happiness, and the others said "good" pleasure in sports at age 14 (Lagestad & Sorensen, 2018). Another research conducted a questionnaire to examine self-reported enjoyment in sports training and competition and the factors associated with

happiness among adolescents aged 14 to 19 years (Lagestad & Sorensen, 2018).

Sports for children has several benefits in various aspects, including increasing self-confidence, emotional control, life satisfaction, psychological resilience, teamwork, cooperation, social intelligence, or social welfare (Teques et al., 2018). Understanding the positive emotions of enjoyment, such as pleasure, happiness, and fun is essential for engagement and commitment to exercise (Humberto et al., 2017). Furthermore, physical and psychosocial changes contribute to children's understanding of childhood development. At about eight years, a child has self-perception criteria similar to adults (dos Santos et al., 2017).

Values of the benefits in a basketball game are obtained when preparing a comprehensive competition and competition process. In this regard, athletes' talent and hard work are portrayed in their skills and tactics, physical fitness, and psychology (Yin et al., 2014). A review of these issues is provided from research evidence related to the contribution of exercise and physical activity to personal enjoyment, personal growth, social integration, and social change (Wankel & Berger, 1990).

The reality in the field and the absence of studies on the relationship between self-perception and parental involvement with playing enjoyment and basketball performance of school-age athletes were the essential points for researchers to conduct this research.

METHOD

This research method in this study is a quantitative method using a cross-sectional approach. The population involved in this study were school-age basketball athletes aged 12 to 14 years in 6 basketball clubs in Bandung, namely Scorpio, Bimasakti, Metro, Bandung Utama, Garuda, and XGC, as well as the parents of the athletes participating in the achievement building process. The number of recorded populations were 150 people. The number of samples was then calculated using the Slovin formula. The obtained minimum sample size was 109 people, plus an estimated drop out of 10% so that the total samples taken were 120 people.

The research was conducted quantitatively using a cross-sectional approach where the dependent and independent variables were measured simultaneously. All data was collected by distributing questionnaires to school-age basketball athletes aged 12 to 14 and their parents during training at six predetermined basketball clubs. The distribution of questionnaires was adjusted to each club's training schedule. The study used three questionnaires as study instruments, namely:

1. The Physical Self Perception Profile for Children (PSPP-C) assesses self-perception adapted from (Whitehead & Corbin, 1988; Fox & Corbin, 1989; Harter, 1985). PSPP-C is designed to examine four subdomains: exercise ability (**SPORT**), body attractiveness (**BODY**),

physical condition (**CONDITION**), and (**GENERAL SELF WORTH**).

2. Parental Involvement in Sport Questionnaire (PISQ) is an instrument to assess parental involvement containing three assessment factors developed by (Lee & MacLean, 1997): **Factor I Directive Behaviour, Factor Ii Praise And Understanding, Factor Iii Active Involvement**. The questionnaire was adapted from the athlete and parent point of view in responding to the same questionnaire after the item was slightly changed to meet the requirements of target people.

3. Source of Enjoyment in Youth Sport Questionnaire (SEYSQ-H) adapted from (Wiersma 2001) to measure enjoyment in sports.

RESULTS AND DISCUSSION

Results

The data collected from 120 samples on the independent variables, namely self-perception and parental involvement, and the dependent variable, namely playing enjoyment, are described.

Table 1. Univariate Analysis

Variable	Frequency	Total (n=120) Frequency (%)
Self-perception		
Poor	33	27,5%
Fair	32	26,7%
Good	55	45,8%
Parent Involvement		
Poor	38	31,7%
Fair	25	20,8%
Good	57	47,5%
Playing Enjoyment		
Poor	45	37,5%
Good	75	62,5%

From the results of univariate statistical testing on the self-perception data category (x_1) described in Table 1, 45.8% ($f=55$) of the basketball athletes had good self-perceptions. In the parental involvement variable (x_2) described in Table 4, 47.5% ($f=57$) of

basketball athletes had an excellent parental involvement. Meanwhile, in the playing enjoyment variable (y) described in Table 2, most of them, 62.5% ($f=75$), had a reasonable playing enjoyment.

Table 2. Bivariate Analysis of Independent Variables on Playing Enjoyment

			Playing Enjoyment		Total	Pearson Chi-Square Value	df	Sig.
			Less	Good				
Self-perception	Poor	f (%)	27 (81.8%)	6 (18,2%)	33 (27,5%)	49,629	2	0

	Fair	f (%)	14 (44,0%)	18 (56,0%)	32 (26,6%)		
	Good	f (%)	4 (7,3%)	51 (92,7%)	55 (45,8%)		
Total			45 (37,5%)	75 (62,5%)	120 (100,0%)		
			Playing Enjoyment		Total	Pearson Chi-Square Value	df Sig.
			Less	Good			
Parent Involvement	Poor	f (%)	28 (73,7%)	10 (26,3%)	35 (31,6%)	39,373	2 0
	Fair	f (%)	11 (44,0%)	14 (- 56%)	25 (20,8%)		
	Good	f (%)	6 (10,5%)	51 (- 14,1%)	57 (47,5%)		
Total			45 (37,5%)	75 (62,5%)	120 (100,0%)		

Based on Table 2, bivariate analysis using the chi-square test, the p-value (Sig.) of the chi-square output of self-perception and parental involvement variables is $p = 0.000$. It

means that the relationship between the two independent variables (self-perception and parental involvement) and playing enjoyment is significant.

Table 3. Reference of Playing Enjoyment Causes

	Observed	Predicted				
			Playing Enjoyment		Total	Percentage Correct
			Poor	Good		
Step 1	Playing enjoyment	Poor	36	9	45	80.0
		Good	9	66	75	88.0
	Overall Percentage					85.0

Based on Table 3, the results of multivariate analysis using logistic regression test show that 45 basketball athletes less enjoyed playing basketball. Thirty-six people did not like playing. While the samples who should not enjoy playing basketball but experienced enjoyment in playing basketball were nine people. The number of pieces who

enjoyed playing basketball was 75 people. Sixty-six people enjoyed playing basketball. Meanwhile, nine samples should have enjoyed playing basketball but did not like playing basketball. Table 6 provides an overall percentage value, which means that the accuracy of this research model is 85.0%.

Table 4. Multivariate Analysis Using Logistic Regression Test

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Parent Involvement			14.714	2	.001	
	Parent Involvement (1)	-	.670	14.486	1	.000	.078
		2.551					
	Parent Involvement (2)	-	.705	2.707	1	.100	.314
		1.159					
	Self-perception			22.494	2	.000	

Self-perception (1)	-	.748	22.315	1	.000	.029
	3.535					
Self-perception (2)	-	.693	6.263	1	.012	.177
	1.734					
Constant	3.428	.669	26.272	1	.000	30.824

In Table 4, there is only one independent variable, namely self-perception, gaining an overall p-value (Sig.) <0.05, meaning that the self-perception variable has a significant partial effect on playing enjoyment. While the parental involvement variable has a p-value of the Wald test (Sig.) 0.100 > 0.05, the lack of parental involvement does not have a significant partial effect on playing enjoyment.

The magnitude of the effect is indicated by the EXP (B) value or called the Odds Ratio (OR). Based on Table 8, the calculation results on the parental involvement variable (OR of 0.314) indicate that athletes whose parents are less involved are at risk of experiencing less enjoyment in playing basketball, 0.314 times compared to athletes who have good parental involvement. The value of B in Table 6 shows the Natural Logarithm result of $0.314 = -1.159$, which is harmful, so the lack of parent involvement negatively affects playing enjoyment.

Discussion

We tried to determine the relationship between self-perception and parental involvement with playing enjoyment of school-age basketball athletes. From the results of bivariate and multivariate analysis, it was apparent that there was a significant positive contribution potential of the self-

perception and parental involvement variables. After being divided into several categories (Poor and Good) between self-perception and parental involvement, it was found that there was an influence difference on a child's enjoyment in playing basketball.

Self-perception has clear relevance to life in general and, in this context, is related to a child's physical fitness and exercise behaviours (Whitehead, 1995) because perception is a cognitive process experienced by individuals when trying to understand the information they receive. Performing well, being recognized as a good player, being part of a team, improving fitness, and losing weight through hard work can make school-age athletes feel great. Those are examples of how experiences can define and shape our self-perceptions in any aspect of our lives. As a result of aligning how others perceive them, self-presentation problems such as social self-awareness, sensitivity to physical maturity levels, need for social approval, and mainly concerns about their body image could arise (Eklund & Tenenbaum, 2014).

This study reveals that athletes have different levels of perception that can affect their playing enjoyment. Positive self-perceptions, especially perceived sport competence, can increase youth participation in sports (Çağlar, E. and F. Hülya Aşçi, 2010).

Individuals who have a good level of cognition tend to have a good perception of the perceived object (Robbin, 2004). They are always confident and optimistic about their abilities, disciplined, and free from fear of failure (Dachyang, 2013). Meanwhile, individuals with negative self-perceptions will have an inharmonious picture of knowledge and responses or reject and oppose the perceived self (Munauwaroh, 2012). Therefore, overall self-perception has a significant influence on the enjoyment of school-age athletes in playing basketball.

Good parental involvement influences playing enjoyment; thus, the lack of parent involvement negatively affects playing enjoyment. This finding is supported by the research results of Harwood et al. (2019), suggesting that parents should engage in a consistent cycle of responsibility, keep the child's needs, and manage themselves, their well-being, and their interactions with other sports environments. Enjoyment is an essential factor as a subjective experience about past satisfaction, future optimism, and happiness in the present (McNulty & Fincham, 2011).

Studies of (Snyder 1974; Bloom, 1985; Wuerth S, Lee MJ, Alfermann D, 2004) generally focus on the contribution of parent roles to young athlete development. Parental involvement in children's sports activities is an investment to ensure that children can develop skills and competencies in the future (Vincent & Ball, 2007). Parental involvement is also necessary for school-age athletes' enjoyment of sports activities. Parental involvement could

increase opportunities for children to reach their sporting potential, have positive psychosocial experiences, and develop positive developmental outcomes (Harwood & Knights, 2015). Thus, it can be understood how parental involvement has a positive or negative impact on the quality of children's experiences in sports (Knight et al., 2017). It is well recognized that parents significantly influence their children's satisfaction and enjoyment (Lev et al., 2020). In a study conducted in America and England, Knight et al. (2016) show that parental involvement depends on various factors, such as the type of sports activity, obedience to parents, previous experience and knowledge, set of expectations, and social values.

Positive reinforcements can increase competence perceptions and help athletes rationalize their thoughts and feelings. In general, children have reported that when parents have appropriate knowledge on their sport (whether as a result of playing or coaching experience) or relevant sporting experience, provide sport-specific information about the competition (i.e. tactical or technical feedback), and receive the child positively, the children's fun, concentration, and self-confidence can increase (Knight et al., 2010). On the other hand, sport-specific feedback from parents who are perceived to lack necessary knowledge or experience can lead to confusion, frustration, or pressure. The impact of parental input on psychosocial outcomes, especially feedback given during competition, appears to be influenced by children's

preferences and perceptions of their parent knowledge (Knight et al., 2010; Knight et al., 2016).

CONCLUSION

The research concludes a significant relationship between self-perception and parental involvement with basketball playing enjoyment of school-age athletes. In the self-perception variable, besides having a relationship with playing pleasure, it can also positively influence basketball playing enjoyment of school-age athletes. Meanwhile, the parental involvement variable in the poor/low category does not positively impact amusement playing. It shows that athletes who lack parental involvement will have a higher risk of experiencing less enjoyment in playing basketball than athletes who have good parental involvement. Thus, it implies that less parental involvement negatively correlates with playing the amusement.

REFERENCES

- Babiak, K., & Kihl, L. A. (2018). A Case Study of Stakeholder Dialogue in Professional Sport: An Example of CSR Engagement. *Business and Society Review*, 123(1), 119–149. <https://doi.org/10.1111/basr.12137>.
- Bloom BS: Developing Talent in Young People. Ballantine Books; 1985.
- Çağlar, E. and F. Hülya Aşçı. (2010). Motivational Cluster Profiles of Adolescent Athletes: An Examination of Differences in Physical-Self Perception. *J Sports Sci Medv*.9(2); 2010 JunPMC3761730.
- Dachyang, M. (2013). Hubungan Antara Citra Diri dan Persepsi Diri dengan Kemampuan Akademik Mahasiswa Jurusan Pendidikan Fisika Fakultas Tarbiyah dan Keguruan UIN Alauddin Makassar Angkatan 2012.
- Dorsch, T. E., Smith, A. L., and McDonough, M. H. (2015). Early socialization of parents through organized youth sport. *Sport Exerc. Perform. Psychol.* 4, 3–18. DOI: 10.1037/spy0000021.
- Dos Santos, P. R., Meneghim, M. de C., Ambrosano, G. M. B., Filho, M. V., & Vedovello, S. A. S. (2017). Influence of quality of life, self-perception, and self-esteem on orthodontic treatment need. *American Journal of Orthodontics and Dentofacial Orthopedics*, 151(1), 143–147. <https://doi.org/10.1016/j.ajodo.2016.06.028>.
- Eklund, R. C., & Tenenbaum, G. (2014). Encyclopedia of Sport and Exercise Psychology. *Encyclopedia of Sport and Exercise Psychology*, November. <https://doi.org/10.4135/9781483332222>.
- Fraser-Thomas, J., Côté, J., & Deakin, J. (2008). Understanding dropout and prolonged engagement in adolescent competitive sport. *Psychology of Sport and Exercise*, 9(5), 645–662. <https://doi.org/10.1016/j.psychsport.2007.08.003>.
- Fox, K.R., and C.B. Corbin. 1989. The Physical Self-Perception Profile: Development and preliminary validation. *Journal of Sport and Exercise Psychology* 11: 408–30 (1) (PDF) *Physical self-perceptions of adolescents in Years 8, 9 and 10 in independent schools, state comprehensive schools and specialist sport colleges in England*.
- Furusa, M. G., Knight, C. J., & Hill, D. M. (2020). Parental involvement and children's enjoyment in sport. *Qualitative Research in Sport, Exercise and Health*,

- 00(00), 1–19.
<https://doi.org/10.1080/2159676X.2020.1803393>.
- Gardner, L. A., Magee, C. A., & Vella, S. A. (2017). Enjoyment and Behavioral Intention Predict Organized Youth Sport Participation and Dropout. *Journal of Physical Activity & Health*, 14(11), 861–865.
- Harwood, C. G., & Knight, C. J. (2015). Parenting in youth sport: A position paper on parenting expertise. *Psychology of Sport and Exercise*, 16(Part 1), 24–35. <https://doi.org/10.1016/j.psychsport.2014.03.001>.
- Harwood, C. G., Knight, C. J., Thrower, S. N., & Berrow, S. R. (2019). Advancing the study of parental involvement to optimize the psychosocial development and experiences of young athletes. *Psychology of Sport and Exercise*, 42(January), 66–73. <https://doi.org/10.1016/j.psychsport.2019.01.007>.
- Herrmann, C., & Seelig, H. (2017). „Ich kann dribbeln!“ – Zur Beziehung zwischen motorischen Kompetenzen und deren Selbstwahrnehmung bei Kindern. *German Journal of Exercise and Sport Research*, 47(4), 324–334. <https://doi.org/10.1007/s12662-017-0468-x>
- Harter, S. (1985). *Manual for the Self-Perception Profile for Children*. Denver: University of Denver.
- Humberto M. Carvalho, Thiago J. Leonardi, Carlos E. Gonçalves Roberto R. Paes. (2017). Influence of coaches on sources of enjoyment in youth basketball. *Journal of Sport Psychology* 2017, Vol 26, Suppl 1, pp. 143-148 ISSN: 1132-239X ISSNc: 1988-5636.
- Knight, C. J., Boden, C. M., & Holt, N. L. (2010). Junior tennis players' preferences for parental behaviors. *Journal of Applied Sport Psychology*, 22(4), 377–391. <https://doi.org/10.1080/10413200.2010.495324>.
- Knight, C. J., and Holt, N. L. (2014). Parenting in youth tennis: understanding and enhancing children's experiences. *Psychol. Sport Exerc.* 15, 155–164. DOI: 10.1016/j.psychsport.2013.10.010.
- Knight, C. J., Dorsch, T. E., Osai, K. V., Haderlie, K. L., & Sellars, P. A. (2016). Influences on parental involvement in youth sport. *Sport, Exercise, and Performance Psychology*, 5(2), 161–178. <https://doi.org/10.1037/spy0000053>.
- Knight, C. J., Berrow, S. R., & Harwood, C. G. (2017). Parenting in sport. *Current Opinion in Psychology*, 16(16), 93–97. <https://doi.org/10.1016/j.copsyc.2017.03.011>.
- Lee, M., & MacLean, S. (1997). Sources of Parental Pressure Among Age Group Swimmers. *European Journal of Physical Education*, 2(2), 167–177. <https://doi.org/10.1080/17408989700202044>
- Lev, A., Bichman, A., Moyal, A., Brenner, S., Fass, N., & Been, E. (2020). No Cutting Corners: The Effect of Parental Involvement on Youth Basketball Players in Israel. *Frontiers in Psychology*, 11(November), 1–9. <https://doi.org/10.3389/fpsyg.2020.607000>.
- Lagestad, P., & Sorensen, A. (2018). Longitudinal changes in sports enjoyment among adolescents. *Journal of Physical Education and Sport*, 18(1), 89–97. <https://doi.org/10.7752/jpes.2018.01011>
- McNulty, J.K., & Fincham, F.D., (2011). **Beyond Positive Psychology?** Toward a Contextual View of Psychological Processes and Well-Being. Published online 2011 Jul 25. DOI: [10.1037/a0024572](https://doi.org/10.1037/a0024572).

- Munauwaroh, M. (2012). Hubungan Persepsi Terhadap Harapan Orang Tua Dengan Ketakutan Akan Kegagalan Pada Mahasiswa Psikologi UIN Malang Angkatan 2008 <https://doi.org/10.1080/00222216.1990.11969823>.
- Park, S., Stone, S. I., & Holloway, S. D. (2017). School-based parental involvement as a predictor of achievement and school learning environment: An elementary school-level analysis. *Children and Youth Services Review*, 82(April), 195–206. <https://doi.org/10.1016/j.chilyouth.2017.09.012>.
- Snyder EE, Spreitzer EA: Involvement in sports and psychological well-being. *Int J 234 Sports Psychol* 1974, 5:28-39.
- Teques, P., Serpa, S., Rosado, A., Silva, C., & Calmeiro, L. (2018). Parental Involvement in Sport: Psychometric Development and Empirical Test of a Theoretical Model. *Current Psychology*, 37(1), 234–249. <https://doi.org/10.1007/s12144-016-9507-2>
- Visek, A. J., Mannix, H., Chandran, A., Cleary, S. D., McDonnell, K., & DiPietro, L. (2018). Perceived importance of the fun integration theory's factors and determinants: A comparison among players, parents, and coaches. *International Journal of Sports Science and Coaching*, 13(6), 849–862. <https://doi.org/10.1177/1747954118798057>.
- Wankel, L. M., & Berger, B. G. (1990). The Psychological and Social Benefits of Sport and Physical Activity. *Journal of Leisure Research*, 22(2), 167–182.
- Whitehead, J. R. (1995). *A Study of Children's Physical Self-Perceptions Using an Adapted Physical Self-Perception Profile Questionnaire*. *Pediatric Exercise Science*, 7(2), 132–151. doi:10.1123/pes.7.2.132.
- Whitehead, J. and Corbin, C.B. (1988). Physical competence/Adequacy subdomains and their relationship to global physical self-worth and global general self-worth. Paper presented at the Annual Conference for the Association for the Advancement of Applied Sport Psychology, Nashua, N.
- Wiersma, L. (2001). Measurement in physical education and exercise science conceptualization and development of the sources of enjoyment in youth sport questionnaire. *Measurement in Physical Education and Exercise Science*, 5(3), 153–177. <https://doi.org/10.1207/S15327841MPEE0503>.
- Wuerth S, Lee MJ, Alfermann D: Parental involvement and athletes' career in youth sport. *Psychol Sport Exerc* 2004, 5:21-33.
- Yin, N. H., Chen, W. S., Wu, Y. T., Shih, T. T., Rolf, C., & Wang, H. K. (2014). Increased patellar tendon microcirculation and reduction of tendon stiffness following knee extension eccentric exercises. *Journal of Orthopaedic and Sports Physical Therapy*, 44(4), 304–312. <https://doi.org/10.2519/jospt.2014.4872>