



Exploration of Life Skills Development through Sports in the Community of Polman Regency

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ABSTRACT

Sport provides opportunities to learn life skills, but its educational benefits in adulthood need to be distinguished from participation alone. This study aimed to describe perceived life skills development through sport and compare category patterns between adults classified as active and inactive in sport in Polewali Mandar Regency, Indonesia. A quantitative observational comparative design was used without a researcher-delivered intervention. The sample comprised 60 adults, with 30 participants in each group. Measurement used a 47-item questionnaire referring to the Life Skills Scale for Sport and covering eight domains. Available category percentages were examined descriptively. The active group had its highest reported percentage in the good category, at 67%, whereas the inactive group had its highest percentage in the fairly good category, at 50%. These patterns indicated different appraisals of learning through sport. The findings offered a preliminary description of perceived learning in community sport but did not establish statistically significant differences, skill improvement, or transfer to everyday life. Community sport programs incorporating learning objectives, practice opportunities, and reflection require evaluation using appropriate measurement and verifiable individual-level data.

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1. INTRODUCTION

Participation in sports provides opportunities to work together, manage emotions, set goals, and face problems in social interactions. These experiences place sport as a relevant context of life skills learning for adults. However, participation in sports does not in itself prove the development of skills or their application in daily life. These relationships need to be examined by paying attention to the experiences of participants and the way sports activities are organized. Gould and Carson (2008) place the quality of experience, appropriate measurement, and skill transfer as important issues in research on life skills development through sport.

Life skills in this context include personal and social abilities that are learned or strengthened through sports experiences. Cronin and Allen (2017) developed the Life Skills Scale for Sport (LSSS) to assess participants' perceptions of learning. Its eight domains include teamwork, goal setting, time management, emotional skills, interpersonal communication, social skills, leadership, and problem-solving and decision-making. Assessment of learning experiences needs to be distinguished from direct measurement of skills. A person who feels helped by sport does not necessarily show the same amount of behavioral change when facing problems at work, family, or the community environment.

The sports environment is an important part of the learning process. The positive development model through sport developed by Holt et al. (2017) places social relationships and learning activities as elements related to participants' developmental outcomes. In studies of young sports participants, Cronin and Allen (2018) also found a relationship between coaching climate, perception of life skills development, and psychological well-being. Both references help explain why exercise experiences can differ between participants. However, evidence from young age groups cannot be directly used to suggest that the same pattern has been proven across adult societies.



The learning process can take place with different levels of intentionality. The continuum proposed by Bean et al. (2018) includes structuring the context of sports, the formation of a positive climate, the discussion and practice of life skills, and the discussion and practice of transfer. This framework shows that learning opportunities can be strengthened through activities that intentionally associate sports experiences with specific skills. Bean and Forneris' (2016) research, which compared the context of the program with different levels of intentional learning, also shows the importance of paying attention to the quality of the program. Therefore, the status of active exercise does not explain all the educational experiences that a person receives while participating in activities.

The application of skills outside of sport is a problem in itself. Pierce et al. (2017) describe transfer as a process that involves using skills learned in sport in other life contexts. Turnnidge et al. (2014) discuss explicit and implicit approaches to the process, while Jacobs and Wright (2018) link learning to its application through a transfer framework. These three studies provide reasons to distinguish between learning experiences, readiness to use skills, and actual application. The ability to cooperate in games, for example, requires additional evidence before it is declared to have been applied in the completion of work tasks or social activities of the community.

Some of the relevant literature comes from school-age physical education and sport. The Opstoel et al. (2020) review discusses personal and social development in physical education and sport, while Bessa et al. (2019) examines personal and social skills in the Sport Education model. Hermens et al. (2017) highlight sports programmes for socially vulnerable young age groups as well as conditions that can support life skills learning. The literature enriches the understanding of the learning environment, but also shows the need for caution when structured education frameworks are used to interpret sport participation in societies whose activities, goals, and mentoring are more diverse.

The study in adults provides a foundation that is closer to the context of this study. Eather et al. (2023) identified the relationship between sports participation and a number of mental and social health outcomes in adults, while noting the inconsistency in the quality of quantitative research. Tanious et al.'s (2023) review of the transition to adulthood also shows that life skill development and its transfer need to be understood through various life contexts. These findings on mental health and social relationships are not identical to life skills scores through exercise. However, both affirm that adult sports experiences are worth examining by considering work, family responsibilities, and learning opportunities outside of sports activities.

In the Indonesian context, Hamidi (2022) examined the integration of life skills through an eight-week golf program in male students. The study used intervention groups and comparators, so the questions centered on intentionally designed learning. The study in Polewali Mandar Regency departed from a different situation, namely sports participation that had taken place in the community without the intervention of the researcher. These differences allowed for the study of community experiences, but did not provide an equal basis for concluding changes after the program. Comparing the two contexts is useful to clarify the types of questions that each research design can answer.

The problem examined was how adult respondents assessed life skills learning through sport when they had different participation statuses. The group that was not active in sports could still acquire skills from work, family, organization, or previous sports experience. Therefore, lower assessments on sports-oriented instruments should not be directly interpreted as low life skills in general. This study aims to describe the perception of life skills development through sport and compare category patterns in active and inactive groups in Polewali Mandar Regency. Its contribution is directed to understanding the context of community sports learning and the comparability limits of its measurements, not to proving the effectiveness of interventions or claims of novelty based on location alone.

2. METHOD

Research design

The study used a quantitative approach with a comparative observational design. Groups were differentiated based on the status of sports participation that had been formed without the determination of treatment. The study was conducted in Polewali Mandar Regency, West Sulawesi, Indonesia. The grouping variable was the status of active or inactive sports, while the variable described was the perception of life skills development through exercise. This design allowed the observation of the pattern of answers in the two groups, but did not separate the influence of sports participation from the initial characteristics of the respondents. Thus, the term comparative was used to express a descriptive comparison, without implying the identification of a causal relationship.

Population and sample

The target population is the adult community in Polewali Mandar Regency. The study involved 60 respondents, consisting of 30 active and 30 inactive people in sports. Participant criteria included adult age, sports participation status, ability to access online or offline questionnaires, and willingness to participate in the study. Respondents' participation was based on willingness to participate. The grouping did not indicate any random placement into the study conditions. Information on age limits, recruitment framework, proportion of responses, demographic



distribution, and the basis for determining sample size are not available to assess the representativeness of the sample in more detail.

Active and inactive statuses are used according to the grouping of respondents. The threshold of frequency, duration, intensity, and reference period to determine such status has not been defined in the available measurement information. The category of inactivity is therefore not equated with never exercising or not doing any physical activity at all. Nor is exercise activity treated as equivalent to all physical activity in work and daily life. The limits of such definitions are taken into account when comparing groups, especially since a person can have learning experience through exercise in the past even though he was not active at the time of the study.

Data collection instruments

Data collection was conducted using a self-report questionnaire that referred to LSSS (Cronin & Allen, 2017). The questionnaire used contained 47 items in eight domains, namely teamwork, goal setting, social skills, problem-solving and decision-making, emotional skills, interpersonal communication, leadership, and time management. The introduction of the item directed respondents to the experiences learned through sports. The response choices moved from 1, not at all, to 5, very many. The responses showed how much learning the respondents associated with sports, so they were not treated as an objective measure of all their personal and social abilities.

The number of 47 items needs to be distinguished from the final version of the 43-item LSSS. In the initial development, Cronin and Allen (2017) retained 47 items at the screening stage before obtaining a 43-item version after follow-up testing. The questionnaire produced information that was presented in five categories, namely excellent, good, moderate, poor, and not good.

Data analysis techniques

The analysis was limited to the presentation of the percentage of categories and the reading of the distribution pattern between groups. The data was processed using SPSS, the percentage was displayed according to the number converted to the number of respondents.

Comparisons were directed at dominant categories and shifting response patterns, without inferential hypothesis testing. P-values, effect sizes, confidence intervals, and differences between domains were not calculated from the aggregate percentage. The absence of inferential results was not interpreted as evidence of the absence of differences.

3. RESULTS AND DISCUSSION

Results

The study involved two groups with the same number of participants, 30 people each. The distribution of measurement results showed different category patterns. In the active exercise group, the highest percentage was found in the good category, followed by very good and good enough. In the inactive group, the fairly good category had the highest percentage, followed by good, poor, and very good. There was no percentage in the bad category in both groups. Table 1 presents all the category numbers without converting them to individual frequencies.

Table 1. Distribution of the perception category of life skills learning through sport

Category	Active exercise (%)	Not actively exercising (%)
Excellent	31	1
Good	67	29
Pretty good	2	50
Less good	0	20
Not good	0	0
Total	100	100

The dominance of both the active and fairly good categories in the inactive group shows a different assessment direction of the learning experience through exercise. However, this distribution does not show how many people are exactly in each category. The percentage amount of 100% in each group also does not solve the denominator problem. The consistency of the total percentage is an initial arithmetic check; consistency with the number of respondents is fixed the frequency of categories and the rules of counting. The absence of bad categories also cannot be used to state that all respondents have mastered every domain of life skills.

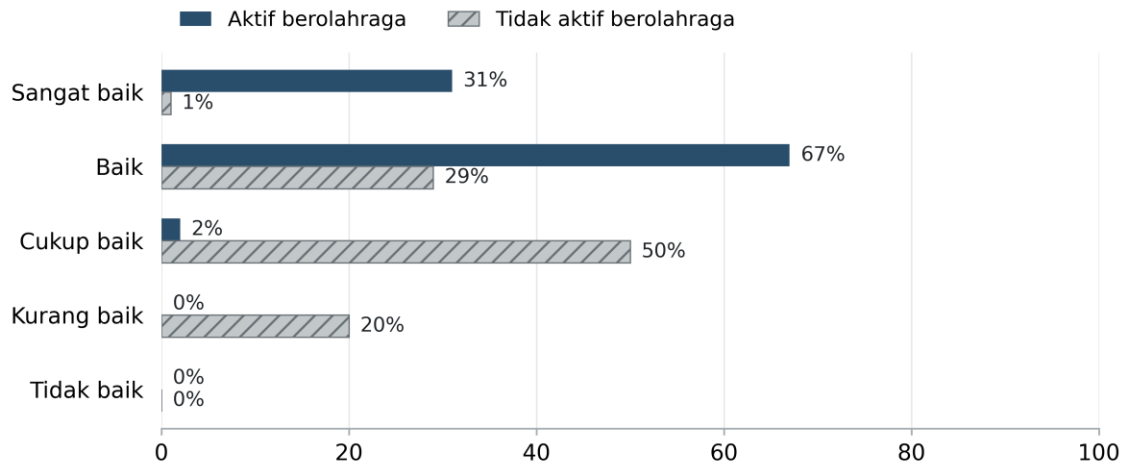


Figure 1. Comparison of category percentages in two groups

The pattern of higher categories in the active group can be read as the tendency of respondents to associate more sport with learning experiences. This interpretation corresponds to the direction of the question that asks respondents to rate what they have learned through exercise. However, the higher categories do not indicate that all of the respondents' skills are better than the skills of other groups. The resulting assessments relate to the sources of learning experiences mentioned in the questions. Respondents who acquire communication skills through work or organization may give low ratings on learning through exercise, despite being able to communicate well in daily life.

One theoretical explanation for this pattern is that there are more opportunities for situations that demand cooperation, self-regulation, and decision-making when a person participates in a sport. This explanation should be separated from the outcomes that have been measured. The study did not take into account the type of exercise, the quality of interaction, the support of the coach, or the intensity of the learning experience. Therefore, greater social opportunity is a testable possibility, not a mechanism that has been proven in this sample. These distinctions help to keep the relationship between research questions, empirical evidence, and conclusions proportional.

Initial differences between groups may also influence answers. Education, employment, organizational experience, and social interaction opportunities are factors worth examining in follow-up research. Self-selection becomes an alternative explanation: individuals with better social skills may be more interested in participating in sports together. Because these characteristics are not presented, their contribution cannot be separated from sports participation status. The similarity in the number of participants in the two groups does not guarantee the similarity of the initial characteristics. A stronger comparison requires a measurement of relevant confounding factors and a clear reason when a characteristic is included in the analysis.

A framework for positive development through sport helps to place the environment of activities as part of the learning experience. Holt et al. (2017) show the importance of social climate and skill development activities in a model built from a synthesis of qualitative research. In the context of Polewali Mandar, the framework is useful as a direction of observation, for example to assess how participants express opinions, receive feedback, and resolve disputes. However, frameworks derived from youth sports are not direct evidence of the processes that take place in adult participants. Their application requires adjustments to the organizational form and needs of the local community.

The study of Cronin and Allen (2018) linked the coaching climate that supports autonomy with the perception of life skills development in young sports participants. The conceptual implication is that the presence of participants does not adequately explain the quality of the interaction they experience. Two people who participate in activities with similar frequencies may have different experiences if the opportunities for opinion, group support, and how to handle mistakes are not the same. This study has not measured these elements. Thus, descriptive findings were not used to select one coaching style as the most appropriate approach for the adult community at the study site.

The intentionality of learning is also relevant to consider. Bean and Forneris (2016) examine the context of programs that intentionally teach life skills, while Bean et al. (2018) outline the stages from more implicit learning to more explicit discussion and transfer practices. In community activities, the practical question is whether skills are only expected to emerge during play or are discussed and practiced with a clear purpose. These choices can be evaluated through process observation. This recommendation does not mean that explicit approaches have been tested more effectively on the Polewali Mandar sample; this study did not compare such forms of mentoring.



Program development requires a connection between educational objectives and field practice. Kendellen et al. (2017) provide an example of research and practice partnerships when life skills curriculum is integrated into a young age golf program. The study is relevant as an example of planning, not as a model that must be copied without adjustment. Adult communities may have different work schedules, reasons for exercising, and mentoring resources. Therefore, the preparation of activities should begin by recognizing the needs of participants and examining whether learning objectives can be implemented in the form of sport they choose.

The use of the same question did not guarantee that both groups interpreted it in the same way. For active participants, the sports experience assessed may be close to the activity they were undertaking. For inactive participants, the answers may refer to longer experiences, infrequent experiences, or the absence of relevant experiences. These differences in memory periods and learning opportunities can affect scores without showing differences in ability. Comparisons that treat all responses as assessments of equivalent experiences risk mixing learning constructs with the magnitude of exposure to exercise.

Putnick and Bornstein (2016) explain the importance of measurement equivalence in studies that compare groups. In this study, the first issue was the appropriateness of the content of the questions for participants with different sports experiences. The examination can be initiated through a content review and cognitive interviews to find out what experiences were used when answering. Statistical testing of measurement equivalence is an advanced step that requires adequate sample design and size. The aggregate data of the categories and the number of 30 participants per group do not provide sufficient basis to claim that the test has been met.

Differences in questionnaire versions add to the need for examination. The same instrument name does not guarantee that the composition of the items, the meaning of the responses, and the formation of the scores are identical. Referring to the 47 items as the final version of the 43 items will result in methodological inaccuracies; deleting the four items after data collection without checking the individual answers also does not solve the problem. The necessary steps are to trace the form of the questionnaire that is actually filled out, ascertain the direction of scoring, and test whether the interpretation of the score is appropriate for the research objectives. Evidence of validity in the research of instrument development does not replace the need to examine its application to different populations and contexts.

Good and good categories also require operational limits. Without a clear cut-off point, category labels can give a more assertive impression of ability quality than the actual information available. Categories formed from average responses, maximum score percentages, or individual frequencies have different meanings. This study has not been able to determine which one is the underlying percentage of results. Therefore, category differences do not translate into the amount of improvement or difference in ability. For the next study, the presentation of scores per domain and its variations will be more informative if the measurement and calculation rules have been established.

The distinction between learning and transfer determines the type of benefits that can be discussed. The perception that sport teaches communication is information about the learning experience, while the use of communication to solve work problems is a different output. Mossman et al. (2021) developed the LSSS-Transfer Scale to assess the transfer of life skills from sport. The existence of this special measure makes it clear that transfer is not enough to be inferred from learning scores in sport. Research at Polewali Mandar has not measured transfer outputs, so the benefits to work, family, or community activities remain an open question.

Jacobs and Wright's (2018) framework can be used to formulate the relationship between learning situations and application outside of sport. Kendellen and Camiré (2019) research further discusses the process of applying learned skills in sport through a grounded theory approach. In practice, evaluations can ask what skills are used, in what situations, what actions are taken, and why those skills are chosen. Concrete questions provide clearer information than general statements that sport is beneficial to life. The examples of application collected still require contextual examination and are not in themselves evidence that change is caused by sport.

In an adult society, opportunities to apply skills are also shaped by life outside of sports activities. The review Tanious et al. (2023) placed life skills and their transfer in a variety of contexts during the transition to adulthood. The study did not provide an age distribution that allowed all participants to be matched to the age group of the review. However, the study cautioned that educational, occupational, and daily responsibilities need to be considered when formulating the evaluation. The skills that one participant feels are important may not necessarily be the same as the needs of other participants, even if they both follow similar forms of exercise.

Comparisons with previous studies need to start with differences in outcomes and design. Eather et al. (2023) reviewed the mental health and social outcomes of adult sports, while this study focused on the perception of life skills learning. A more positive assessment direction in the active group can be discussed alongside the social benefit literature of exercise, but it does not show similarities in outcome measures or the magnitude of relationships. Psychological well-being, sense of belonging in the group, and skills learned through sport are conceptually



interrelated, but they are still distinct constructs. Construct equalization will make conclusions beyond what is actually assessed.

Hamidi (2022) provided a comparison from Indonesia through a golf life skills integration program on 22 male students for eight weeks. The existence of interventions, comparison groups, and measurements before and after the program differentiated the study from the observation of community groups. Therefore, the results of the intervention research were not used to refer to the distribution of categories in Polewali Mandar as an improvement after training. Instead, this study shows the need to link research questions to design: descriptions of community experiences are answered through observation, while assessment of change after learning requires measurements that follow the change process.

The physical education literature provides lessons on the importance of assessing the process of activities. Opstoel et al. (2020) examined personal and social development in the context of physical education and sport, while Bessa et al. (2019) focused on the Sport Education model. Results in a structured education environment cannot be directly matched with community activities that do not yet have the same learning curriculum. On the other hand, the comparison helps to determine additional information that needs to be noted, such as role sharing, opportunities for cooperation, interaction rules, and forms of feedback. These elements of the process are not yet available in the research results, so they are not used to explain one domain as the most developed.

Hermens et al. (2017) also showed the diversity of research on sports programs for socially vulnerable young age groups. A relevant lesson for this study is the need to pay attention to the suitability of the target group, the activities carried out, and the skills assessed. Contextual diversity does not mean that all results can be combined into one uniform benefit statement. In the adult community, recommendations should follow the needs of participants and the evidence collected directly. With such an approach, local results can be used to sharpen research questions without claiming that all findings from other populations have been replicated.

The practical implications are directed at designing activities that can be evaluated. Community managers can choose one skill that suits the participants' needs, such as communication when working together, and then devising practical opportunities during sports activities. After the activity, participants can be asked to describe the situation they are facing and actions that help the group. This example is a proposed program development based on educational reasoning, not a procedure that has been implemented or tested in research. These limitations are important so that practical advice does not turn into an effectiveness statement that is not supported by measurement.

Program evaluation should link the implementation of the activity to the intended output. If the program focuses on cooperation, the evaluation needs to examine each participant's opportunities to contribute, how roles are shared, and experience of completing shared tasks. If the goal is transfer, the evaluation needs to collect examples of implementation outside of sport within a clear period. The number of meetings or participant attendance alone is not enough to answer both objectives. Process indicators, participant perceptions, and behavior examples can provide complementary information if the definitions are established prior to data collection.

Inactive groups also need to be involved in needs mapping without being placed as a general proficiency deficient group. Time barriers, choice of activities, affordability of facilities, and previous experience are questions that can be examined, not characteristics that have been found in this sample. Programs that intend to expand participation need to make room for a variety of participant needs. These research data have not allowed the selection of recruitment strategies or specific forms of sport as the best choice. A defensible implication is the need to examine access, learning experience, and appropriateness of outcome measures before making broader program decisions.

The first limitation relates to the basis of the data and measurements. The percentage of categories cannot be reconciled as the proportion of individuals in a group of 30 people. Ambiguity of denominators, category cut-offs, and consistency of response labels limit interpretation and prevent accountable inferential statistical calculations. Differences in questionnaire versions and the lack of evidence of measurement equivalence also limit comparisons. This problem cannot be solved simply by improving grammar or choosing another statistical test. Examination of individual data and measurement procedures is a major requirement before drawing stronger comparative conclusions.

The next limitation is the scope of the sample and the design. Participants came from one district, while information on recruitment, demographic distribution, and sports characteristics was insufficient to assess representation or confounding factors. Self-reports can be influenced by memory, interpretation of questions, and tendencies to provide answers that are considered good. The study also did not have measurements of changes after intervention or observation of the application of skills outside of sports. Therefore, the results were not generalized as the level of life proficiency of the entire Polewali Mandar community and were not used to express a cause-and-effect relationship.

Subsequent research needs to determine the inferential objectives before determining the sample size. Lakens (2022) explained that the reason for determining the sample size must be related to the information to be obtained, such as the accuracy of the estimate or the effect that is considered significant. In this context, the addition of participants needs



to be accompanied by a clear definition of participation status and appropriate outcome measures for both groups. Longitudinal data collection can help examine the sequence of changes, while intervention evaluation requires initial measurements, appropriate comparators, and implementation monitoring. Transfer measurements should be placed as separate outputs, with a follow-up period and implementation context established from the outset.

4. CONCLUSION

The active exercise group had the highest percentage in the good category, while the inactive group had the highest percentage in the good category. The pattern provides an initial overview of the differences in assessment of life skills learning through exercise among adult respondents in Polewali Mandar Regency. However, the unclear percentage denominator, category formation, and instrument comparability limit the conclusions in the description. The findings have not proven statistical differences, increased skills due to exercise, or the application of skills in daily life.

The contribution of research lies in the placement of the perception of learning as a construct that needs to be distinguished from general ability and skill transfer. The development of community sports can be directed towards clear learning objectives, appropriate practice opportunities, and reflection on the participants' experiences. The implementation and benefits of such approaches need to be tested through planned evaluation. The priority to strengthen the evidence is to ensure individual data, instrument versions, scoring rules, and group definitions; after that, the analysis can be tailored to the research objectives. On this basis, program recommendations can be built from information that is more traceable and relevant to the needs of the community.

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