

ROLE OF KNOWLEDGE-BASE TEAM TRAINING AMONG ADOLESCENTS

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Abstract –

Growing importance of physical activity necessitates the adoption of team training-based framework to facilitate cooperation among adolescents. Team training enhances adolescent's participatory skills through information exchange during training. However, team participation extends beyond superficial cooperation between participants notion on common goals shared by team members. For effective participation, dissimilation of information and acquisition of skills among teams, it is essential that the cooperation for achieving shared goals is maintained. Team training functions as a collaboration of different entities working together to achieve a goal that could not be accomplished by individual participant. Participation in physical activity could be constructed in domains involving command and control of numerous teams interacting together. This approach provides structured training that allows the trainees to execute actions and decision in a realistic setting. Knowledge-base team training facilitates multiple use of training environment to achieve training goals and the sharing of information in a cooperative manner that improves proficiencies as teams follow the maxim "*practice makes perfect*" strategy. Adoption of team training by focusing on sharing of skills that could potentially improve adolescent performance during physical activity, interactions among team, enhance situational awareness, communication efficiency and effective team decision making skills is helpful in improving healthy well being of adolescents. In order to quantify the learning effectiveness of adolescent participation during physical activity, this paper evaluated the potentials of team training strategy on adolescent health development wellbeing, identified team training processes and validated the training components that were executed.

Keywords: | Physical activity | Team training | learning effectiveness | information sharing|

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1. INTRODUCTION

This Knowledge-base team training offers a framework that facilitates meaningful and conceptual understanding of central ideas that facilitates coordinative physical activity participation among adolescents [1]. Adolescent's knowledge prior to team training differs and reveals difficulties in connecting scientific concepts to existing knowledge appropriately [2]. Adolescents entering into team training use training technique which worked well during their past experiences [3]. However, the training techniques often based on behaviorist learning paradigms and are often characterized by inadequate linear knowledge representation [4]. Generally, team training experience and satisfaction with a new technique are important criteria in the overall evaluation of a specific training technique [5]. A study by Allen and Tanner (2003) pointed out the necessity to introduce team-based training technique so as to avoid overstraining demand and refusal. In addition, self determination theory by Deci and Ryan [6 and 7] proposes that the perceived competence in team training base on a new technique as well as the usefulness is important points that can be applied in future tasks. In pre-team training concept fosters understanding and decrease anxiety towards learning and teaching in sport science [8]. In addition, team training promotes achievement similar to training success achieved through a pre-structured expert's training concept [9]. Hence, knowledge-based team training concept can serve as summary tool in which a complex domain structure can be coherently represented.

2. NEED FOR FOR PARTICIUPATION IN PHYSICAL ACTIVITY

Participation in regular physical activity is an import criterion for healthy living. Study on participation in physical activity among Canadian adolescents in 2008 suggested that changes need to be made on the general health status of Canadian adolescents without which health problems associated with physical inactive will rise to an alarming level [10 and 11]. These studies reported that past three years physical activity training level drastically decreased and suggested for a desperate steps for improvement so as to control health hazards associated with inactive lifestyle such as obesity, overweight, hypertension as well as heart attach [12]. The study found that adolescents are not meeting Canada's physical activity guidelines of daily 90 minutes of physical activity [12]. The public health agency of Canada (2002) recommended that adolescents should participate in 90 minutes of moderate to vigorous physical activity daily, in

addition to their activities of daily living which was approximated to 16,500 steps [13]. Consequently, similar inactive lifestyle has been reported in the developed countries [14]. Study showed that adolescents are less active than previously thought and giving rise to increasing health concerns [12]. The inactive life style among adolescents globally can be improved via team training through which knowledge on physical training can be disseminated to participating groups through an organized concept.

Health effect of physical inactivity physical inactivity elevated risk of developing obesity at adolescent age through to old age [15]. Obesity among adolescent has increased substantially in the past 25 years [16 and 17] resulting from decreased participation in physical activity levels among adolescents in danger of developing illnesses such as heart disease, type 2 diabetes, hypertension, stroke, and cancers [15-17]. However, it has been well established that participation in physical activity decline with age while effect of physical inactiveness are more pronounced during adulthood [18]. As a result, inactive adolescents are at increased risk resulting from inactive lifestyle and its associated risks through to adulthood [15]. Adoption of knowledge-based team training among adolescent Physical activity is the most modifiable way to increase energy expenditure [19] and attenuate weight gain resulting from increased energy input as most adolescent are not active enough to obtain health benefits that may be independent of excessive weight gain [20].

2.1 Communication in Team Training

The adoption of knowledge-base teaching system for team training in physical education is in its infancy and requires further experiments with different team training protocols. However, for improved participation during physical activities there is need for effective communication medium to coordinate the training exercises. Coordination of team training events has been influenced by numerous factors. Among challenging issues in knowledge-base team training include: what to communicate, to whom to communicate, when to communicate, and how to communicate. Training languages must however; be designed to answer the question and how communication is to be facilitated through the entire participating team [21].

Communication in team training can be divided into three levels which include content, individual intentions, and team intentions [21]. Content as referred to team training is concerned with information content communicated among team which can be realized through a standardized communication language such as the knowledge-base interchange format [22]. This

method offers a standard format for heterogeneous systems. The second level specifies the individual participant intention of trainer which can be obtained through knowledge query and manipulation language for expressing intentions such that all trainers would interpret them identically [23]. This method could provide extensive set of performance-communicative actions among trainers and defines set of policies that constrains the legal sequences of communication acts, which induce a set of inter-trainer conversation patterns that uses the communicative action. The third level depicts conventions trainers share when interacting by exchanging communicative messages. Coordination language was introduced to serve the third level because communication is not limited to the exchanging information but also for forming joint intentions [21]. With the knowledge-base roles and capabilities, responsibilities and planning in team training physical activities can be performed with a uniform set of methods in an efficient way.

2.2 Team Training in Physical Activity

Health care has steadily become an issue of major concern among adolescents. Participation in team training recreational sports and physical activities is becoming more important because of health related problems associated with inactive lifestyle [24]. As adolescent participations rates in physical activities increases, the risk of injury among participations consequently increases. In 2002, National reported that about 715,000 sports and recreation related injuries occur in school settings each year. Almost one third of adolescents that participated in physical activities experienced health-threatening related injuries [24]. As a result of these injuries, there is an ongoing challenge among health care professionals in athletic environments and those working with the athletic population to develop and implement knowledge-based training scheme strategies that can adequately meet the demand of adolescent's that participates in physical activities. To be effective, there is need establish knowledge-based team training that promotes and evaluates adolescents participation in relation to health care needs that will minimized injury. Continual evaluation and the revision of team training will enable adoption of health care standards and guidelines.

Evaluations and revisions of team training with respect to health care in athletic environment could be achieved through qualitative research. Qualitative research is a satisfactory study often conducted to assess the social climate in areas of obscurity, and potentially applying newly discovered team based training technique that provides satisfactory participation among physical

activity participant which have shown to be an accurate predictor of behaviour to regularly participate in physical activity. The impact of adolescent's satisfaction in team-based training can be quantified by its role in developing participant's skill and relationship to meet health need at reduced risk of injury. Studies have shown that adolescent satisfaction has been linked to poor adherence and compliance levels, levels of education, sports facility as well as adolescent's attitudes [25-32]. In athletic environments, participant satisfaction is derived from team training and the compatibility of available sports facilities for training services provided [33-35]. Importantly, team training should be guided by proficient trainer so as to impact skills and knowledge required for adolescent's health wellbeing.

2.3 Role of a team Trainer

The role of a team trainer in an athletic environment has shown to be a critical component to knowledge-base training [36]. Study contended that team training has an important link to athletics program and training facilities [36]. Study in 1999 [37] clarified that the primary tasks, knowledge-base training and, and acquisition of skills are necessary to successfully equip athletic trainer so as to impact the required knowledge and skills to participating adolescents. This role delineates a study that determined six performance domains that accurately define the role of a practicing athletic trainer which included prevention of athletic injuries; recognition, evaluation, and assessment of team training; immediate care; treatment rehabilitation and reconditioning of athletic; health care administration; and professional development and responsibility. Therefore knowledge and skills for effective team training will provide enabling environment for adolescent participation and evaluation rating of their involvement in physical activities.

2.4 Monitoring Trainee

Monitoring the actions of trainee and trainers is required to allow for the collection of data necessary for a coach to determine success and effectiveness of the training strategy. Monitored actions refer to inputs from team training framework. A list of the actions and time of each action enables the ordering of sets of trainee actions which can be used to create a domain-based physical activity model for monitoring trainee's framework as well as individual trainee actions

and the capturing of other associated state information [38]. This information is important for assessing and coaching elements of a team training framework. Team training interactions facilitate the fulfilment of trainee's roles and responsibilities therefore, the participants trace need to be extended to account for the team training performance in relation to team members.

3. COMPONENTS OF TEAM TRAINING

Educational council established a list of components to be taught by accredited athletic training curriculums and concluded on twelve domains of competency which were considered as the minimal requirements to be taught to entry level athletic team training for adolescents professionally [38]. These twelve component include, risk management; pathology of injuries; assessment and evaluation participants performance; care of injury and illness; pharmacology; therapeutic modalities; therapeutic exercise; general medical conditions and disabilities; nutritional aspects of injury; psychosocial intervention and referral; health care and administration; professional development and responsibility [38]. These components can be effectively managed through the adoption of knowledge-base team training by facilitating effective and efficient information base on training framework and control over the use of facility for specific physical activity and control of participant's behavior.

4. EXECUTION OF BEHAVIOUR IN TEAM TRAINING

The role of a team trainer delineation study and component domains define what practicing athletic trainer should receive through education and how teams should perform these routine tasks however; the qualities of an athletic trainer is of great important. Study have revealed list of professional behaviors needed for athletic trainers to successfully coordinate team training. These behaviors include personal qualities such as love for sports and competition; stamina and the ability to adapt to training; empathy; sense of humor; ability to communicate; intellectual curiosity and ethical practice [36]. Other important qualifications that have been viewed as helpful to knowledge-base team training include stress management, psychosocial support skills, organizational skills and time management skills [38].

4.1 Need for Adequate Care for Team Trainers

Increase in popularity of sports has increased dramatically as well as sports related injuries. This has created the need to improve medical coverage standards for sports participants. In the present day, athletics are competitive and are extremely demanding. Athletes train and compete for tournament almost throughout the year. However, increase in team training and competition sessions results in more sport related injuries [36]. Occurrence of injuries has demanded for the evaluation of team training strategy as well as the standards of medical coverage. In addition, the rapid influx in female adolescent's participation in athletics increased the need for more medical coverage. The increased in training session and competition and increase in female participation in sports prompts the need for sufficient health care and the use of improved facilities. In an attempt to deal with the growing concern, there is need to control participant's exposure to injury resulting from increased participation seasons by adopting knowledgebase team training which can potentially coordinate training programs using framework.

Knowledge-base team training strategy creates a rating system of several components that could help determine the amount of medical coverage necessary for each sport such as the inclusion of the potential for catastrophic injury, and treatment per sport, prolonged season exposure, team size, travel requirements, and health care administrative duties. Among other recommendations and guidelines for knowledge team training in sports includes the certifications to athletic trainers [39]. In addition, low risk sports should have an individual that meets the aforementioned qualifications while sports activities of moderate and high risk should be coordinated by a certified athletic trainer through the adoption of knowledge-base team training strategy [38].

5. CONCLUSIONS

The role of physical activity to healthy living could be defected if proper measures to coordinate the activities are not taking. Participation in team training has shown to be ideal strategy to encourage team training among adolescents. Team training motivates adolescent to engage in sports activities. Motivation to participate in regular physical activity is an important criterion for healthy living. Regular participation of adolescents in physical activity can be motivated through

knowledge-base team training. Knowledge-base team training techniques is characterized by adequate linear knowledge representation and excellent coordination strategy and offers suitable strategy plan for prolong physical activity program. The adoption of team training promotes physical activity outcome similar to training success through a pre-structured expert's training concept. Physical inactive adolescent are prone to health hazards such as obesity which has been on increase for the past 25 years. Team training interactions facilitate the fulfillment of trainee's roles and responsibilities therefore the participants trace need to be extended to account for the team training in relation to team members. Therefore the adoption of knowledge-base team training will provide capabilities for efficient planning framework that can be performed with a uniform set of methods

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