

Air Badminton: A game to promote well-being and livelihood among young people in low-income communities

Abstract:

The neglect and limited opportunities available to people living in low-income communities, especially children, are alarming. In Eguaboano community, most people live below the poverty line, without formal education and lack certain basic amenities that can spurt unhygienic conditions. This research examines air badminton activities as a model to promote well-being and livelihood among young people in low-income communities. Drawing on the literature, this research adopts a mixed-method design. A total of 72 respondents comprising 61 young people (answered questionnaires) and 11 parents (engaged in semi-structured interviews) were surveyed. Braun and colleague's thematic analysis is employed to analyse the respondents' questionnaires and semi-structured interview data. Findings show that most respondents risk becoming vulnerable to dermatological complications (e.g., skin bleaching), teenage pregnancy and excessive gambling harm due to the absence of organised physical activity participation. However, incredible attendance and regular participation of children and young people's eagerness to learn air badminton provide optimism for future. Results indicate that there was regular participation, enhancement of well-being and health, reduction in school dropouts, identification of talents and prospects, and confinement to the community reducing truancy. The participants learn values (e.g., respect, cooperation, leadership, dedication, discipline, etc.) while their parents applaud the initiative and request its sustainability. The study offers valuable data for stakeholders in education, government, local authorities, philanthropies, sports federations, Badminton Association of Ghana and NGOs to support young people in low-income communities for social change in African communities.

Keywords: Air badminton, low-income communities, sport, well-being, children and young people

Introduction

Our encounter with Eguaboano, one of the low-income communities along the coast greeted us with social issues such as poor sanitation, skin bleaching, teenage pregnancy, and school dropouts among teens and young adults. This same community is without a sporting facility, with most school dropouts aged between 8 and 17, a recipe for an uneducated community that can make them vulnerable in the Winneba Municipality. The latter has produced the best badminton players for Ghana, who can serve as role models in the communities. Indeed, people in low-income localities rarely find safe space to engage in sporting activities and the absence of it may put the youth “at -risk” in Eguaboano (see Hartmann & Kwauk, 2011).

Protecting young people from becoming vulnerable can help improve their well-being and livelihood in Eguaboano as revealed by scholars (e.g., Baran et al., 2013, Castagno, 2001). Eguaboano community lack basic amenities such as public toilets and pipe-borne water that can spurt problems including poor sanitation among others. The absence of certain basic amenities is deepened by limited spaces for engaging in physical activity because of its rocky topography. Certain studies explained how individual engagement in physical activity (PA) may promote healthier living and benefits including having fun, enjoyment and social support that offers an identity for new entrants’ participation in sports (Allender et al., 2006). Studies have shown that older adults’ engagement in badminton activities improved their physical health, sports participation, well-being and continuing personal development (Chan & Lee, 2020). Thus, badminton is considered a carried-over activity for a lifetime and the most second popular sport that people participate in the World (Chan & Lee, 2020; Samuel, 1991). Based on some social issues in Eguaboano, this study employs air badminton activities as a model to improve well-being and livelihood of young people (children, teens and young adults) through education and sensitization. These research questions guided the study; (1) how can air badminton promotion contribute to the well-being and livelihood of young people in low-income communities and (2) what is the role of badminton in the education of young people in Eguaboano community?

Literature on sport for development and sport-based intervention programmes support understanding ‘air badminton’ as a potential remedy that can promote physical activity, reduce school dropouts and teenage pregnancies, improve well-being and unearth talents and prospects for the sport in Eguaboano community. Indeed, the game of air badminton can be played by young and old individuals alike when they come together to enjoy it (Samuel, 1991) within a safe space. This justifies the need for using the sport as a conduit to resolve certain social issues in the nucleated settlements of Eguaboano.

This study is the first of its kind in Ghana, as it will reassure and improve the well-being and livelihood of people in Eguaboano (e.g., children, teens, young adults, and parents). Other studies have applied sport as a tool for development and peacebuilding in communities and this research adds up to the existing literature. The knowledge of this research can provide valuable information for stakeholders including the government, local authorities, philanthropies, and Non-Governmental Agencies (NGOs) to channel some of their support to low-income communities, which may promote local and national development. The present research reports on the results of air badminton practice impact, thus, improving the well-being and livelihood of young people via effective educational campaigns and sensitization in Eguaboano. The study is structured as follows; a brief on Eguaboano community illuminating some benefits of playing badminton and how sport-based intervention programmes can facilitate social change among individuals in low-income communities with its practical implications. Analysis of the empirical data is undertaken, which includes discussion and concluding comments, recommendations and perspectives of the study.

Overview of Eguaboano

The name Eguaboano is derived from early settlers around rocky areas closer to the shore and found in the Southern part of the Winneba Municipality. Winneba is the capital of Effutu Municipality in the Central Region and is traditionally named after *Bondzie Osimpam*, their leader who led them to their present-day Winneba “Simpa”. A community with most of its true indigenes found along the shore and are into fishing. “Nkwantanan” represents the exact Southern suburb of Winneba within which the Eguaboano community is located and noted for its festival that attracts global participation. In Eguaboano, a substantial number of people below the poverty line, are without formal education due to school dropouts engaging in fishing activities. Eguaboano community is foxed with a lot of social issues including unhygienic places, no structures, no proper drainage system, lack of playing ground for children, limited community centre within the settlement area, gambling among the youth, teenage pregnancy, skin bleaching and child neglect among others. Eguaboano falls within the hard-core poor, child neglect, school dropouts and illiteracy as identified by the Winneba Municipal Assembly in their report of 2014-2017 (p.27).

In Eguaboano, there are an estimated 500 indigenes with the majority being young people. It shared borders with four different communities. Within Eguaboano, two territories are the upper and lower (where the game was staged and practised). In this community, men are always going fishing thereby shifting their responsibilities to their wives who eventually relay these responsibilities on to their grannies to manage everything in their homes. This could have contributed to making young people not pay much attention to their mothers who are always sympathetic, unlike their fathers. Despite fishing not being done on Tuesdays, fathers still go to the shore to repair their fishing nets and canoe and find ways of moving to other territories where they can fish therefore, hardly do they stay home. Their actions have contributed a lot to their children’s social issues as they are always looking for money to help maintain their families at the expense of raising their children.

Badminton practices and its related benefits

Physical activity can promote healthy development and concurrently, decrease the risk of various chronic problems in the general population (Haskell et al., 2007; Durstine et al., 2013; Booth et al., 2008). Studies have shown that badminton is not only a physical activity intended for improving physical and motor components but also practising can promote mental health in young adults with intellectual disabilities (Chen et al., 2021). They further argued that providing inclusive badminton training in a normal setting helps to improve health and well-being in individuals with intellectual disabilities (p.7). Previous studies explain how badminton engendered well-being, increased participation and personality of older people in later life (Chan & Lee, 2020). This supports the assertion of Samuel (1991) that badminton is a very sociable activity, which most children and adults can play efficiently shortly after they are introduced to the game. This revelation plays a role in choosing the sport as a model to remedy certain social issues in low-income communities (e.g., Eguaboano).

When badminton game was first introduced to untrained females within 8 weeks of recreational activities, they improved their health markers such as increasing their perception of their physical conditions, stamina and fitness (Patterson et al., 2017). They explained that badminton practice effectiveness surged participants’ social engagement motives (i.e., affiliation) to exercise. This is reflected in participants spending time with friends, enjoying the social aspects of playing badminton and having fun being active with friends and making new friends (Patterson et al., 2017). For females, “badminton can increase an individual’s social engagement motives to exercise and a potential reason for people to join badminton groups” (Patterson et al., 2017, p. 1104). In their studies, they observed that school teachers and coaches can adapt Shuttle Time Badminton Lessons to promote health and wellness and improve the acquisition of badminton skills in adults with intellectual disabilities (Chan & Lee, 2020). Because badminton supports children and adolescents to develop physically active

lifestyles (Wang & Moffit, 2009) that are important for their growth and well-being. Much as badminton activities can support people with intellectual disabilities to have improved health, then it should be recognised as an effective tool, which may help lessen social issues among young people in low-income communities.

Badminton as a lifetime activity can provide everyone (e.g., children, seniors, and individuals with disabilities), to experience a certain level of satisfaction in the game by learning the basic skills and tactics (Wang & Moffit, 2009; Samuel, 1991). Research shows that badminton not only contributes to developing participants' cardiovascular fitness (Docherty, 1982; Wright, 2007) but also improves bone health (Nordstroem et al., 1998). For some of these reasons, many schools in Ghana have welcomed the inclusion of badminton in their physical education curriculum. The numerous benefits of badminton for participants seem to cross-cut barriers.

Badminton practice has been reported to improve the endurance and strength of participants including elite and junior-level players (Zekan-Petrinovi, 2007; Babalola, 2011). In the United Kingdom, a study revealed significant links between badminton and cardiovascular health markers to be useful for untrained athletes (Patterson et al., 2017; Nassef et al., 2020). Beyond that, badminton is attractive and can be adopted by all and sundry because its basic rules are simple and easily learned at an early age (Yuksel et al., 2015). Also, it can help children progress their balance while enjoying the activity (Yuksel et al., 2015).

In sum, the benefits associated with badminton and its training and programmes span across most participants in society. Badminton can promote physical health, improve mental strength, engender socialisation and well-being and support the livelihood of people in their communities.

Sport for interventions and social change

To Hartmann and Kwauk (2011), the dominant approach of sport reflects itself as a powerful, prosocial force for character building and self-discipline (e.g., Dovey, 1993; Right to Play, 2008; UNICEF, 2004). This is also enshrined in the United Nations (2003) adoption of Resolution 58/5, where sport has been influential and progressively instrumental for development in the international community. Sport continues to help nations to achieve economic, social, political, and health-related development goals (United Nations Inter-Agency Task Force on Sport for Development and Peace, 2003). Certain studies have acknowledged the influential aspects of sport that can cut across barriers, which divide societies, therefore, making it a powerful tool to support conflict prevention and peace-building efforts, both symbolically on the global level and very practically within the communities (e.g., United Nations Inter-Agency Task Force, 2003).

Sport is recognised as an international language that permeates through all barriers where little else can, as explained by the late Mandela (see Author & Colleague). Some African leaders or presidents have used sport as a stratagem to achieve their political propaganda and promote Pan-Africanism (Author & Colleagues, 2020; Author & Colleague, 2022). This is because sport has the potential to promote social mobilisation and offer communities the needed platform to promote public initiatives (United Nations Inter-Agency Task Force, 2003). Sport also permits messages and programmes to be delivered to broader society by creating a medium for transmitting information and programmes to hard-to-reach groups in a comfortable and familiar atmosphere or environment (United Nations Inter-Agency Task Force, 2003). All these can enhance data dissemination to people in various places where it is sometimes difficult to reach, but sports may facilitate it with ease.

The architect of the European Charter¹ on sport admitted that sport encompasses all forms of physical activity that contribute to physical fitness, mental well-being and social interaction. These include play, recreation, organised casual or competitive sports, indigenous sports or games. Through sport, youth and adolescents learn many things including certain

values that help to shape and reshape their character in society (Lumpkin, 2008). Participation in sport (e.g., air badminton) contributes to helping children develop skills and friendships, and improving their physical fitness (Lumpkin, 2008).

Certain scholars argue that urban poor youth males as victims of circumstances and potential social threats in developing countries can be helped to identify their socioeconomic prospects in the community. For example, sport for change (e.g., football) provided a way to “produce an ideal type of being, a ‘good-citizen’ through some mechanisms (trainers, physical exercises and notions of being good),” which engendered certain values resulting in the adaptation of adequate behaviours (to enable them to perform and behave as expected in the public realm) (Avila, 2015).

Participation in badminton programmes or activities has resulted in numerous benefits, including developing togetherness (McConkey et al., 2019), promoting socially appropriate behaviours (Özer et al., 2012), and improved leisure pursuits and physical functioning (Baran et al., 2013, Castagno, 2001). The role of sport as an educational tool for the disempowered and marginalised young people in communities was reported by Hartmann and Kwauk (2011). They further suggested sport as the perfect space for young people to be socialised and refashioned into established subjects and industrious citizens in society (Hartmann & Kwauk, 2011). In Ghana, low-income communities lack basic resources and social support making them vulnerable. Sport-based development programmes are often directed particularly to such “at-risk” communities and populations (Hartmann & Kwauk, 2011). Thus, using sport-based programmes (e.g., air badminton) as a valuable intervention among children, teens and young adults can help minimise certain social vices in Eguaboano. The people’s predicament situates exactly in the concept of what Robert Pitter and David Andrews (1997) termed as a “social problem industry” often neglected by the state and supported mainly by philanthropic, non-governmental agencies, organisations, and initiatives (e.g., BWF model of funding such social projects in communities).

In this context, sport is presumed as a comprehensible tool for normative, reproductive development supposed to function as a model for social change via educating and readjusting underprivileged or deviant individuals into “upstanding” citizens (Darnell, 2007). Here, sport for change is seen as bridging and bonding communities with the appropriate interventions capable of ameliorating the conditions of young people in the Eguaboano locality. Subsequently, sport-based programmes create access to resources, information, social networks, and economic opportunity from which marginalised individuals were once alienated (Blackshaw & Long, 2005; Spaaij, 2009a, 2009b). Certain sport-based interventions do more than just develop the “right” environment for individuals to lift themselves (and eventually) their communities out of their otherwise challenging and marginalised circumstances” (Hartmann & Kwauk, 2011, p.288).

To realise the positive impact sport for change can produce, its programmes or activities must be organised and structured in a purposive and systematic manner geared towards achieving them (Hartmann & Kwauk, 2011). For instance, studies on sport-based crime prevention initiatives in the United States and other related works (Black, 2010; Darnell, 2010a, 2010b; Giulianotti, 2011, 2021; Guest, 2009; Kidd, 2008; Levermore & Beacom, 2009a, 2009b), informed the study of Hartmann to outlined certain key elements needed for effective sport-based social intervention (Hartmann, 2011).

In sum, sport-based interventions (e.g., football, badminton) have facilitated positive impacts especially, on the underprivileged in society judging from the literature and these can enrich the current research, which advances the promotional activities of air badminton to the benefits of young people in the Eguaboano community.

Method

This research relied on the pragmatist viewpoint to solicit the necessary information in answering the research objectives. Pragmatism and mixed method support to explain the concept that epistemological pluralism can result in potential disagreement while “moving back and forth between datasets with the knowledge produced by each one” therefore, a more holistic understanding is likely to be achieved (Feilzer, 2010, p. 12; Ghiara, 2020). This research employed a partly mixed, synchronised, overriding status design with quantitative and qualitative elements conducted simultaneously in totality before combining the data at the interpretation stage (Leech & Onwuegbuzie, 2009). The research engaged with the participants (children, teens and young adults) that supported reshaping our ethical and methodological positions by considering social and cultural context (Dubinsky, 2017; Graham et al., 2013). This contributed to having a considerable number of young people respond to the questionnaires with the support of a native person after applying ethical guidelines to get the needed information for enhancing our analysis.

Participants

A total of seventy-two were purposefully sampled to participate in both quantitative and qualitative elements of the study and inclusion criteria were that children and youth who have attended the entire duration of practice sessions and with parents arbitrarily selected based on their availability for the interview (see Table 1). All participants satisfied the inclusion criteria regarding the research rationale. The sample size was satisfactory as it helps to enrich the study discussion while providing a considerable number for analysis. Sixty-one (61) participants for children and youth were substantial for the quantitative and eleven (11) was suitable sample for qualitative as they qualified above the suggested minimum of six participants for meaningful thematic analysis (Braun et al., 2016).

[insert here Table 2]

Data Collection

The locations for data collection were mainly private in nature (e.g., selling places, place of residence) with a few taking place at the practice venue. This enables uninterrupted access that helped parents to vividly express themselves in their local dialects and offers their views on the subject matter for the duration of the study. All times and locations were chosen to facilitate participants' convenience and engagement. Following institutional ethical approval, consent forms and information sheets were issued with confidentiality and anonymity ensured to all participants. The names used throughout the study, especially parents are their local names as pseudonyms.

Quantitative data collection

In this research, an 11-item questionnaire focuses on the kind of sporting activity young people like and why they chose badminton and how it has benefitted them as an individual. Young persons were categorised into three groups, thus, those between ages 6-11(children) (n=19), those within 12-17(adolescent/teens) (n=37) and those within 18-21(young adults) (n=5). The children and teens respondents answered questionnaires with the support of their parents who consented on their behalf. This adopted approach helped to consider the social and cultural context (Dubinsky, 2016; Graham et al., 2013) including the local norms and the involvement of a native person. The young adults were provided with consent forms before they answered the same questionnaire with few nuances. The study administered questionnaires to understand the benefits children, adolescents and young adults have gained from their participation in air badminton practices throughout the project. The semi-structured interviews for parents supported to verify changes in behaviours and its effect on their children and youth in the community. The 11-item questionnaire used is supported in research and mainly applied to quantitative and mixed method design as suggested by certain scholars (e.g., Ronkainen et al.,

2016; Steele et al., 2020). All questionnaire administered was retrieved from the participants. The questionnaire solicited certain elements from participants including social background, the sporting activity they mostly engage in, their favourite sport, whether they have heard of badminton before, punctuality at training sessions, their impression about the game and its benefits and what they have learned through their participation.

Qualitative data collection

A set of interview questions was developed from literature in line with key areas of study; social background relating to occupation, children, education, etc; could you share with us some of the sport you are familiar with and how you got to hear of badminton; why you allow your child/children to attend badminton practice and what has changed in their behaviour at home; and share your impression about air badminton (see Table 1). The interview questions were appropriately refined and amended, which provided opportunities for further probing to obtain underlying views of the parents sampled. During the interviews, authors clarified any issues raised by the parents to ensure that the atmosphere was cordial and cooperative. This helped to obtain highly personalised data that align with the research rationale. The interviews lasted between 10–20 mins for each parent in their local dialect and were further translated into English language. Most interviewees were women with only one man because men are always at the shore fishing and rarely do they stay home with their wards based on the community history (predominately fisherfolks). Interviewees are self-employed mostly dominated by fishmongers and petty traders for women and an electrician (man). All interviews were transcribed verbatim for data analysis (Braun & Clarke, 2013) after audio recordings. The interviews offered parents the opportunity to explain how the introduction of air badminton game has impacted their young people's well-being and livelihood in the community.

Data analysis

Quantitative data analysis

All questionnaires were appropriately checked to ensure that everything was completed and suitable for analysis. Using Microsoft Excel-supported computing individual item scores combined to provide an overall rating also presented in frequencies and percentages (see results). First names of children, teens and young adults were used as their parents consented to it.

Qualitative data analysis: semi-structured interviews

To authenticate the participants, change of behaviour and benefits from air badminton, parents were interviewed to reaffirm what their wards have gained from engaging in the activity. Data triangulation was used to confirm the narrations of the participants (young people and their parents), but nuances emerged in their narrations due to different perspectives from the parents. Our engagement with different participants (young people and parents) was relevant as it supported the gathering of credible and valid data that enhanced the study's outcomes. Young people gave valuable information on their experiences with air badminton and its effects on their well-being in the community.

Interviews were tape-recorded with the prior consent of parents and transcribed to reflect their views on the subject matter. The qualitative data set from the parents' narrations were analysed with the thematic analysis of Braun and Clarke (2021). The six phases involved helped combined data and theory to identify patterns of meaning or themes across the dataset through in-depth, prolonged and frequent engagement with, and interpretation of the data, which could align with pre-existing patterns (Braun et al., 2019; 2016; Braun & Clarke, 2006, 2012; Nikander et al., 2020). Parents offered enthralling disclosures into their young people's

air badminton experiences and its impact on their well-being, which reinforced key concepts and captivating themes with that of their children.

The second and third co-researchers generated verbatim transcriptions of each recorded audio interview, which were examined by the principal investigator for consistency. The transcription process enabled us to familiarise ourselves with the interview transcripts relying on those parts of the interviews related to the topic (Step 1). The following activity was undertaken as researchers read thoroughly to generate initial codes by listing interesting features of the data, and specific themes were sorted into codes (Steps 2 & 3). Themes were reviewed and refined to ensure cogency regarding the coded extracts and the qualitative data set. This was followed by further development of the final report (Steps 4, 5 & 6). The data was analysed both inductively and deductively (Sparkes & Smith, 2014), as the researchers pursued to make sense of the parents' narrations to confirm some of their wards' responses and its connection with the research literature.

To ensure the trustworthiness of the data separate review of the interview transcripts was undertaken and data analysis stages were done by all the researchers to approve the qualitative data with suitable samples and research rigour. In safeguarding the above, we relied on the following reflexive methods, to increase validity; a concise checklist of criteria was used according to Braun and Clarke (2006), for example, the 11-items "checklist" for thematic analysis and details of the six-stages approach employed in research contributed to ensuring rigour during qualitative data analysis. Others include transcription where data were transcribed to a suitable level of detail, transcripts were thoroughly checked against taped recordings for accuracy, and so on. Employing dialogic member checks supported improving rigour of our empirical themes for consistency and credibility (Brear, 2018). Further reliability was ensured by peers after the presentation of findings to colleagues at the semester's seminars organised by the Faculty of Science Education at the university. Finally, the researchers confirmed the data and agreed on the research results.

Findings

This section presents key findings from the study. It includes concepts and themes derived from respondents to questionnaires and the narrations of parents based on their observations and the well-being of their wards as they participated in practising air badminton. Within this section, the literature reviewed supported understanding and making sense of respondents' experience and engagement with air badminton over the period. The empirical themes derived contributed to describing participants' change in behaviours and engagement with air badminton that aligned with their feelings and concerns as evident in the data. Again, these empirical themes were revealing as it marks the historic practice of air badminton and its effects on children's well-being and livelihood in Eguaboano.

From the data, the majority of the participants engaged in air badminton practice were adolescents or teens representing 61% followed by children representing 31% and the least were young adults at 8%. Adolescents/teens are more attracted to air badminton, which demonstrates their dedication to the game. Young males are the majority constituting 66% while females are 34% of the total participants. The number of females is encouraging as they exceed half of the male participants. Most of the participants have lived in Eguaboano for over six years therefore, have a lot to share about this new game introduced to them. 85% of the participants are enrolled in school with 13% dropping out of school and a participant is yet to start despite attaining school-going age. After the introduction of air badminton as a new sport to participants in Eguaboano, it was realised that most participants representing 84% attended practice sessions more than twice a week. This shows that young people have accepted the game and continued to participate regularly in the practice sessions. Most participants first heard of air badminton practice the very first time it was introduced in the Eguaboano community through friends, family members, siblings and other folks who reside within the

practice venue. Different sources of obtaining information on air badminton activities increased patronage among the participants in the community.

All participants admitted that engaging in air badminton practice sessions provided them with fun, excitement, enjoyment and the chance to socialise. Further, they acknowledged that the game can be played everywhere by everyone (young or old) within a safe environment, as it is less injurious and easy to learn. This new game can provide an opportunity for them to be selected to represent their school when it is introduced in the municipality since they have learned to play in the community.

Most parents are self-employed representing 98% with 2% working in the public sector as a nurse assistant. The majority of their parents work as artisans such as carpenters, masons, bricklayers, petty traders, fishmongers, hairdressers, and food vendors, which earned them an income for their survival.

Before the introduction of badminton practice in Eguaboano community, most participants (41%) used to roam indiscriminately away from their respective environs mainly to play football, fly kites on the hill and play in the streets. 31% of them either used to sell along the street after school and on weekends or supported their parents or guardians with household chores, which kept them indoors and inactive when it comes to sports. Also, 28% of them were mostly found at the shore engaging in diverse activities such as gambling with nuts, rubber bands and money. They occasionally swam in the sea, stole fish, and played various recreational games in the sand that always make them very dirty and unclean exposing themselves to pathogens and ailments. All these social behaviours have also been minimized as they now have a game to preoccupy them.

All participants explained the different benefits they have derived from playing air badminton after its introduction in the community. This is presented in themes after thorough analysis of their responses, which cut cross regarding the research objectives.

Promotion of well-being and sustainability

All the participants admitted that engaging in air badminton activities has improved their health, physical activity participation, fitness, hygiene and cleanliness. Several (n=36) of them described that playing air badminton has contributed to their fitness, making them active during PE lessons at school and enjoying the different practice that comes with it. Others explained that air badminton practice had forced them to bathe twice a day because the game made them sweat. It was evident in their response that through their engagement with air badminton activities they do not fall sick frequently as they used to. Those children below the age of eight confirmed they no longer played in the sand and that has contributed to improving their health. When asked what he usually does after school before air badminton was introduced in the community, Yaw wrote that “I used to play in the sand with friends sometimes, we play certain recreational games like ‘Monday-Tuesday’ or act as parents to cook meals and eat occasionally.”

Another adolescent aged 14 years who attended air badminton practice with his four siblings stated that their regular participation has reduced their ailment in the community. Joe penned that “I do not fall sick these days as I used to since I started playing air badminton with my friends at training.”

In support of the game promoting participants’ well-being, their parents attested to it, as it has improved their health status, provided a form of exercise, strengthened their bones, kept them active and minimised illness. A parent recapped how his son has benefitted from playing air badminton:

My son Joe takes part in their practice session, I believe it can also enhance his health. Because he uses this game as a form of exercise regularly it will improve his strength. Since the introduction of the game, he barely falls sick, these days he can walk far distances, when you send him on an errand, he goes and comes quickly.²

Others explained certain benefits their children have enjoyed after participating in air badminton practice sessions: As the only male parent puts it:

I see the game as a form of exercise, these kids play all the time. They are by so doing exercising their body. Such activities make their bones flexible, and teach them healthy ways to play than going out too far places without their parents' watch.³

In sum, parents have identified the need for their children to engage in physical activity that can improve their health status. This demonstrates why they have advocated for the air badminton project not to be truncated. These are some views of parents concerning their request for its sustainability realising the benefits of participating in organised physical activity. A 64-year-old grandmother requested for the game not to be discontinued since it has brought changes to her granddaughter's life. She narrated that "we are requesting that such a beneficial game should not be taken away from Eguaboano. Supposed some of the equipment is spoiled they should be supplied constantly to encourage them to play all the time."⁴ This parent with six children added her voice for the game to be maintained. She narrated that:

I see the game has come to help us 'the mothers' very well. Our kids used to roam far distances to go and play with their peers on their game of interest but these days, because badminton is practised here in the community, they are every day found within the community.⁵

Parents have come to recognise the benefits of participating in such a game. This has led to certain of them showing up always to motivate and support their children at the practice venue. A parent recounted her experience at the practice venue:

That is why you see some of us every day coming closer to watch as they practice. They all help. If not, you would not see us even allow our kids and granddaughters to come and play the game. Seeing our kids at badminton practice is a privilege and fetches us some honour.⁶

For these parents, it is always intriguing to see their children playing air badminton as it gives them honour and excitement. She mentioned that "even as parents when our children are playing, we also come around to watch for pleasure. It is fun, exciting and interesting to watch our children play in front of us."⁷ Another emotional parent who sells food strongly pleaded that the game should be continued because stopping it means that their children will go back to their old ways of roaming and playing at the shore. She narrated that:

These kids need help. This is one of those. It needs to be sustained once they have developed some passion for it. You should not stop or think of changing the venue instead the organisers should think of ways of expanding the project. When the programme stops our kids will be completely spoiled. They will go back to the shore, roam and pick up bad ways of living.⁸

Confinement and preoccupation

Most participants (n=42) attested to the fact that their engagement with air badminton practices has prevented them from roaming and minimised their gambling activities (e.g., with cards and rubber bands) at the shore. Thus, they are occupied by the game, not going swimming at the shore, not playing in the street, not climbing the hill to fly kites and cannot follow their elder brothers to be used as cheap labour at the sea. Indeed, the game of air badminton has contributed to preventing certain social vices improving confinement, and avoidance of certain bad behaviours of participants in sport. Adwoa, a female Junior High school student stated that "at least now I spend time in the house and in the community instead of going out to roam with other peers." Also, a school drop-out explained his routine playful activities before air badminton practice was introduced "he used to swim at the shore, gamble, and fly my kite at Apapantado"⁹

Others described that through regular practices of air badminton, they have avoided certain activities like gambling with nuts, rubber bands (Shoko) and money while playing cards or with Electronic Gaming Machines (EGM). A 12-year-old boy wrote that “I no longer get the time to play around the street lights because after the air badminton training, I become very tired.”

All parents are excited about the game’s introduction in the community. For them, it has contributed to minimising the roaming of their children and rather confined them to a specific location as they no longer make themselves dirty and are easily found. A 31-year-old parent as a fishmonger expressed how the game and its educational messages have brought relief to her regarding the children roaming. She recapped:

My children roam about and they end up becoming so dirty after playing. There are times when you even see them, excuse my language, to say, you do not know what to do to yourself. So, so, dirty! But, bringing the game to this community has improved their hygiene conditions. All the kids get together at the playground to play badminton but this time it does not make them as dirty as they used to. Now, they play air badminton and return right to their homes. To me, it is exciting to see them clean every day within the community.¹⁰

Some hailed the game as a way to drive children away from playing in rocky areas, which have resulted in the death of certain kids previously. The 66-year-old parent who is an electrician shared his experience of the game in the community. He described that:

Sometimes, they cunningly devise their way to go play at ‘Apapantado.’ This is a place they have been advised on numerous occasions not to play there because it is not safe for children to play there yet, they continue to go there because they fancy the place. They have stopped going to such a place these days because of air badminton practice in the community. They are kind of devoted to it. [...]. I love seeing them play here in such a game than sneaking out to go play at obscure places like Apapantado.¹¹

This parent’s assertion is not different from others as he recognises the important role of the game in the community. Subsequently, it has prevented their children from going to play in rocky areas such as ‘Apapantado.’ The game has engaged them by restricting participants to the venue where they can be easily located. This single parent with six children reiterated the significant role of the game since it has prevented her young son from following the elder brother to look for money at the shore while abandoning school:

If it is not for this game here, my boy would have followed his elder brother to the shore to look for money and by so doing would quit school to stay at the shore all the time. [...], he can drop out of school. Because of his commitment to the badminton practice, I have decided to make sure that I find food for him all the time so that he would be enticed not to go to the shore with the elder brother. I also think that the badminton game will become useful for him in the future.¹²

In short, parents admitted that air badminton practice has brought to them some sort of excitement and relief because their children no longer go roaming and are preoccupied with the sport.

Education and learning of values

Numerous participants (n=58) acknowledged that they had learned the rules of the game, techniques and equipment used for playing the sport; sensitization on becoming hygienic, keeping their surroundings clean and avoiding skin bleaching; learning values such as respect, obedience, cooperation, tolerance, honest, discipline, etc. Others have accepted that the game has taught them to be punctual and regular at school, advised to avoid using foul or vulgar language, and filthy language against people and need to sleep early after practice.

A 10-year basic school participant who had lived her entire life in the community shared what she has learned from playing air badminton. She mentioned that “I have learned the new

game, the equipment used for playing it such as racquets, shuttles. I have also learned the backhand and forehand among others that we use to play the game here.” Another participant who dropped out of school from Basic 2 has resolved to go back after engaging in air badminton practice. He recapped “through the air badminton practice, we play here in the community, I have been advised to go back to school to continue. I have thought of enrolling by next term to continue from where I stopped.” Also, a 11-year-old girl whose parents are food vendors described how the game has transformed her social interaction in the community. She mentioned that “air badminton practice has taught me not to use foul language on people (vulgar or naughty, or filthy language).”

A parent who has lived over 13 years in the community and never witnessed a live badminton game narrated its importance as her children can now practice and attend school regularly. She recalled:

Talking of my kids, the game does not disturb them in any way. They attend school till they vacate and when they are absent it can affect their badminton practice too. [...]. I do not let them stay home because in their school whether you stay home or not you will pay the school fees. For this reason, I always entreat them to go to school all the time. Stella, even if she is not feeling well, she goes to school.¹³

Some parents clarified that the game has helped shape the characters of their children and controlled their roaming about aimlessly. For this parent, the air badminton practice has changed the behaviour of her son for the better. She recapped:

At first, my son was involved in a character I did not like. He could go to the shore with his friends right after closing from school. I really disliked this attitude of his. I yelled at him all the time. But now the introduction of the game has directed his attention away from fishing at shore.¹⁴

A parent who is a fishmonger without education described that seeing her son engaging in the game practice makes her happy. For her, the game has provided the opportunity for the son to attend school regularly because he is afraid, he could be denied the chance to practice. She narrated that:

He regularly goes to school, but at first, I used to be on him several times before he takes his bathing and goes to school. But these days he is afraid of being denied the opportunity to practice, so he obeys my order to bathe without hesitation.¹⁵

The game is progressively changing children’s behaviour for the better as some now show respect and have become submissive to their parents.

Social networking

To participants (n=21), the game has improved their social network. Thus, through playing air badminton, they have established contacts and make new friends, become popular among their peers and attracted friends from other environs to the badminton practice venue. The game has improved their friendships, social relations and networks, popularity and fostered integration and social inclusion and a hub to locate friends. Ama shared her experience as the game has strengthened their friendships and social bonding in the community. She stated, “the air badminton practice is not only entertaining us as friends, but also kept the bond between me and my friends in the community.” Another participant, Kwame clarified that the game has enabled him to reconnect and interact with some friends’ mothers which was not the case previously. He said, “I can now join hands with friends in another house like Kweku, the mother does not talk to us, so, we did not play together at first.” Parents confessed that the game has helped them to easily identify where they can find their friends. This is shared by a Basic 5 student “all my friends play here, so, now I know where to find them whenever I need any of them.”

A parent who has spent her entire life in Eguaboano expressed her riveting observation about her daughter's change in behaviour via the game, making her sociable and getting new friends. She narrated that:

I do not remember getting so deep into sports so, there was no reason to expect my daughter to grow to also like sport. But with the introduction of air badminton in this community, my daughter has developed an interest in and love for it. Sometimes, she is the one that asks the trainer if there will be training. So, it has made her so active in sports. That is one thing. Again, through badminton, she has opened up, and she can play with all her friends in the neighbourhood. She now has made many friends unlike she used to be always indoors reserved with herself.¹⁶

A fishmonger who has not seen this game before believed that some children may get the opportunity to travel outside the country to play. With her excitement, she shared her observations of the game practice:

Some of the boys always come over to our house to call him. Especially, when it is time for them to start their air badminton practice. He also at different times whispers or announces to some of his friends that today they will be having their training this afternoon.¹⁷

Through the game, her son has made new friends that come around to call him and encourage them to join their practice session. This will deepen their social integration as they practice together at the same venue.

A new game

All participants accepted air badminton as a new game, less vigorous, injury-free and fun, which can be played within a limited safe space compared to other sports like football and athletics. A minor, aged 8, interestingly remarked "air badminton is a new game, so we are the only people who can play it. Those people in 'Kyerepowso', 'Ntae dan mu' and 'Ayipe' (surrounding communities) cannot play with us. Even they cannot play at all." Some elaborated that the new game has provided them with an opportunity to participate in physical activity, learn a new sport and be free from going to sell in the street. A 13-year-old Kofi narrated his parents' support:

Playing the new game has given me freedom, now I do not have to go and sell in the street after school. My parents allow me to also play the air badminton game because everybody's child is involved and parents come around to support them.

This new game has paved the way for certain participants to learn with the support of their parents as it can improve their motor and cognitive skills, exhibit fair play and ethical behaviour, and goodwill towards an opponent. Certain parents have requested that the educational component of the practice session be extended since it has improved children's studies at home and school. That is, more time should be assigned to the learning and teaching of their children before actual practice begins. She recapped "I think there should be some form of learning (studies, academic work). Where about 30-45 minutes can be devoted to teaching them before they progress to their air badminton activities."¹⁸

A parent with keen interest and always punctual at the practice venue shared her observation on this new game. She remarked:

I see this new game bringing out significant changes in my children. Their attendance at school, hygiene (bathing), and house chores everything is changing gradually. When they go there, they are thought some of these things there. I suspect that is, what is influencing these changes. That is why I leave them always to go there to play.¹⁹

For this parent, the game has brought substantial changes in the behaviours of her children, made them undertake their house chores and improve their well-being. This made her

encourage them to always attend practice sessions. An elderly woman who always sits in front of her house shared her observations about the new game, which has restricted certain adolescent girls from the same residence not to stay out longer at night. She explained that “at first when they go out, they often come back in the night but with the introduction of this game, they have stopped”²⁰

This parent described one interesting thing about the new game as it has prevented their children from roaming and constantly participating in the practice sessions. She recalled:

Thanks to the introduction of this new game, they no longer overstay. They are mostly found here and when they close all of them rush home. I feel it is all due to the air badminton game. It is something they like to participate in all the time rather than roaming about unnecessarily.²¹

Discussion

This research enlightened us on air badminton as a model that can contribute to promoting well-being and livelihood among young people in low-income communities of West Africa. Through their engagement with the game, young people had the opportunity to learn and be educated as they enjoyed participating in physical activity. Less has been researched in this area in Ghana context. Drawing on mixed method research design, it supported understanding of how participants engaged in air badminton activities to improve their health, confinement, punctuality at school, social networking, learning values and offered the opportunity to play a new game in such a community.

Findings suggest that parents admitted the immense benefits of air badminton as a new sport to their children in the community. This contributed to identifying five key themes, particularly (i) promotion of well-being and sustainability (ii) confinement and preoccupation (iii) education and learning of values (iv) social networking, and (v) a new game. These helped to confirm parents’ acceptance via their children’s experiences with playing air badminton in Eguaboano.

In this study, it was realised that young people’s regular participation in the game promoted their health status, leading to a reduction in risks of general illness (Haskell et al., 2007; Durstine et al., 2013; Booth et al., 2008) while fostering active engagement. According to parents, the game has improved their children’s well-being and facilitated mass participation (Chan & Lee, 2020) and can provide them with job opportunities in the future. The findings reaffirm the study of Samuel (1991) that badminton is a very sociable activity, which most children and adults can play efficiently shortly after being introduced to it. Even though parents could not play alongside their children, they were always present to support and encourage them.

The literature contributed to understanding certain benefits air badminton has brought to children, their parents and the community people at large, as highlighted in the findings of the study. Our results demonstrate that children’s engagement with the game has improved their health and motor coordination, physical activity participation, fitness, and acquisition of new skills (Chen et al., 2021; Chan & Lee, 2020; Patterson et al., 2017; Wang & Moffit, 2009; Wright, 2007; Docherty, 1982), hygiene and cleanliness as well. Besides, the health benefits to the children, it provides a form of exercise by strengthening their bones (Nordstroem et al., 1998), keeping them active and preventing sickness, which their parents have acknowledged as very important. Indeed, the game thrills and entertains parents as some are attracted to the venue to watch with pleasure. Indeed, parents and community people have advocated for the continuation of the game due to the benefits their children have gained and enjoyed

The game has promoted socialisation and the acquisition of new friends among participants (Patterson et al., 2017). This makes it an influential, prosocial force for character-building and self-discipline (see Hartmann & Kwauk, 2011; Right to Play, 2008; UNICEF, 2004; Dovey, 1993). Practising air badminton in Eguaboano has attracted children from nearby

surroundings to join their friends thereby creating a platform for transmitting information and programmes to groups in a comfortable environment (United Nations Inter-Agency Task Force, 2003).

Participants' engagement with air badminton has significantly contributed to preventing certain social vices such as gambling, roaming at the shore, playing in risky rocky areas and long staying outside at night have been curtailed. The game has helped to shape and reshape young people's character in the community (Lumpkin, 2008). The sport also has brought about changes in the behaviour of reserved participants who have now become sociable and made new friends (Patterson et al., 2017; Samuel, 1991). This has resulted in fostering togetherness among participants via air badminton different activities (McConkey et al., 2019).

Through practice sessions, participants engaged in physical activity, learned skills (Lumpkin, 2008) and a new sport. To participants' parents, the sport has brought drastic changes in the behaviours of their children, moulding them to be "good citizens" via educational speeches and learning of certain values for life, aiding them to adapt and tolerate different behaviours (Avila, 2015; Darnell, 2007) in every environment they may find themselves.

To parents, the new game has brought them a "great relief" as they can easily locate their children at any point in time after school. The limitation of young people roaming and playing far from home has made parents plead with the funder to help maintain the sport otherwise, their children may go back to their old ways when it is terminated. Parents and community people have praised the funder and the researchers for their dedication, commitment, tolerance and zeal to use the sport for social change in such a low-income urban community. However, they requested the project sustainability due to its numerous benefits for them, having been neglected for far too long by authorities and this may make them more vulnerable especially, their children. The community people are found within the "social problem industry" (Pitter & Andrews, 1997) therefore, recommend stakeholders turn and support them particularly, their children and youth so that they can anticipate development and social inclusion.

Conclusions

This study employed air badminton practice as a model to improve participants' well-being and livelihood despite poverty and multiple challenges that can make them vulnerable. Air badminton the first in Winneba Municipality to such a neglected community served as an intervention to engage children by improving their health status, physical activity participation, reducing roaming, learning values and understanding the essence of formal education. It further promoted social relations and networks while creating the opportunity for participants to enjoy, have fun and socialised via a new sport.

Parents and community people were very excited to see their young people practising the sport, which they observed for the first time in their life. They expressed the immense contributions the sport has had on their children and humbly requested its sustainability in Eguaboano so that it can provide some with job opportunities in the future. Through the literature, various benefits associated with sport-based interventions were realised by the participants' involvement in the practice sessions. Participants had the opportunity to learn a new sport, refrained from playing in risky rocky areas, avoided wandering about, observed changes in behaviours, learned values that have shaped their lifestyles, and fostered social integration and inclusion. The game has succeeded in bringing peace and understanding among quarrelling parents with their children's participation. Methodologically, the study adds to the existing body of research regarding the use of air badminton as a sport-based intervention to support young people in low-income communities through the mixed method approach adopted.

With benefits that parents and community people have noticed and experienced via their children's participation, a policy that can support sport-based interventions for the underprivileged in low-income communities without voices should be considered in order to address some of their needs. Otherwise, certain social change projects embarked on cannot yield the needed outcome in which urban poor young people are found, therefore failing to address inequality and social exclusion.

This study recommends further research focusing on air badminton sustainability in Eguaboano due to its positive impacts. The game should be introduced to parents and the community people so that in the future they can manage it themselves as it can foster their social bonding and unity. The study centred on only children within the lower territory of Eguaboano even though a few of their friends from the upper territory and surrounding communities occasionally joined, it can be extended to those areas in the future. The limitations of the sample size used in the study must be recognised especially, on the male parents. The use of one male parent participant should be increased in future studies. Also, interviews were limited as they could not capture other community people's views apart from participants' parents in Eguaboano.

Notes

1. This is a broader definition of sport approved by The Council of Europe in the 1992 European Charter (Article 2.i.).
2. Interview with Maame at her residence in Eguaboano, 27 April 2022.
3. Interview with Charles at his residence in Eguaboano, 28 April 2022.
4. Interview with Grace at her residence in Eguaboano, 27 March 2022.
5. Interview with Aduafuah at her residence in Eguaboano, 4 April 2022.
6. Interview with Aba at her residence in Eguaboano, 14 March 2022.
7. Interview with Ekuu at her residence in Eguaboano, 25 June 2022.
8. Interview with Maame at her residence in Eguaboano, 27 April 2022.
9. Apapantando (sacred and dangerous rocky area) is a local name for the rocky area where children used an improvised metal plate to ski on it.
10. Interview with Akos at her residence in Eguaboano, 13 May 2022
11. Interview with Charles at his residence in Eguaboano, 28 April 2022.
12. Interview with Sotor at her residence in Eguaboano, 21 April 2022
13. Interview with Ama at her residence in Eguaboano, 23 April 2022
14. Interview with Rose at her residence in Eguaboano, 14 June 2022.
15. Interview with Aduafuah at her residence in Eguaboano, 4 April 2022.
16. Interview with Rose at her residence in Eguaboano, 14 June 2022.
17. Interview with Akos at her residence in Eguaboano, 13 May 2022
18. Interview with Esi at her residence in Eguaboano, 21 April 2022.
19. Interview with Aba at her residence in Eguaboano, 14 March 2022.
20. Interview with Sotor at her residence in Eguaboano, 21 April 2022
21. Interview with Ekuu at her residence in Eguaboano, 25 June 2022.

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