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# Road to success: lessons from the Qatar Foundation Ability Friendly Program

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## INTRODUCTION: QATAR FOUNDATION'S ABILITY FRIENDLY (AF) PROGRAM

### History and evolution of the programme

Although the AF sports programme was not officially launched in Qatar until 2019, the planning process for the development and inauguration of the programme was set in motion much earlier. Three years earlier, in 2016, the World Innovation Summit for Health (WISH), an initiative of the Qatar Foundation for Education, Science, and Community Development (QF), published a global research report on autism titled 'Autism: a Global Framework for Action'.<sup>1</sup> This report formed one of a series of reports published during the WISH 2016 summit, and 1 of 50 WISH has produced since its inception in 2013. Publication of the autism report also coincided with a powerful grass-roots campaign from a group of mothers in Qatar who were collectively calling for greater inclusion opportunities for their children.

The idea for a programme that would provide a unique opportunity for inclusive sports, leisure and social opportunities for children and young adults with autism came directly from the recommendations of the WISH report.<sup>1</sup> For the vast majority of WISH research reports, it falls to national and regional governments, along with other care providers, to implement and take forward report recommendations. While the Qatari government set about creating an overarching national autism strategy at the national level—taking many of the recommendations from the 2016 report—the WISH team saw an opportunity to use its parent organisation, QF, as a platform to lead the introduction of ability-friendly programmes within the community.

## Summary box

### What are the new findings?

- Physical activity (PA) and participation in recreational sports in general have been proven to have a positive influence on development and growth. Individuals living with disabilities can particularly benefit from being physically active as the associated positive impacts are not only limited to improving health-related outcomes alone but can also have a positive influence on all levels of functioning.
- The Qatar-based Ability Friendly (AF) Program is the first of its kind in the country. The programme not only focuses on PA for differently abled individuals but also targets social development. Data collected from the AF Program have indicated that participants have experienced improvements in social development, including showing signs of higher self-confidence.

### How might it impact on healthcare in the future?

- The recommendations shared in the study can help guide the development of similar initiatives in the future.
- In Qatar, through local capacity building efforts and the formation of strategic partnerships, this programme is expected to scale up and be adopted at a national level to ensure equitable and fair access to everyone in need.
- Internationally, given the global shortage of sporting activities and services in general for individuals with disabilities, organisations or communities looking to replicate the AF model will benefit from the shared experiences outlined in this paper.

Physical activity (PA) and participation in recreational and competitive sports in general have long been considered a positive

influence for the adoption of healthy lifestyles and overall development and growth.<sup>2</sup> As such, the promotion of PA has become an issue of great importance in health policy in first-world countries.<sup>3</sup> Individuals living with disabilities (both physical and neurodevelopmental or cognitive) can particularly benefit from engaging in sporting activities and being physically active, especially given that PA not only has positive effects on health-related outcomes but also can influence all levels of functioning positively.<sup>2</sup> However, most individuals with disabilities do not regularly participate in sports,<sup>4</sup> and the risk of developing non-communicable diseases is almost three times as high among this population than people without disabilities.<sup>5</sup> Statistics suggest that people with autism are 40% more likely to be overweight and obese than their typically developed peers,<sup>6</sup> further strengthening the case for sporting activities for those on the spectrum, as well as for individuals with other disabilities.

In October 2017, WISH, in collaboration with the Liverpool Football Club Foundation, the official charity of Liverpool Football Club, hosted a football training course with the aim to identify and address the effective ways to engage with children who have autism spectrum disorder (ASD) and/or sensory or physical impairments.

The training programme, previously called 'Respect 4 All, Qatar', was hosted at Education City (Education City is a large campus in Al Rayan, developed by Qatar Foundation, that houses a number of educational, residential and recreational facilities including (but not limited to) football courts and swimming pools) in Doha over the course of 4 days from 8 to 12 October.<sup>7</sup> The training focused on giving sports coaches targeted practical training (train the trainer) on helping differently abled children reach and realise their potential and socialise. The training also promoted healthy lifestyle habits through the participation of children in football-related activities. The programme sought to build capacity over the longer term by educating Qatar-based coaches rather than providing a short-term one-off event for child participants.

The training comprised both theoretical classroom sessions as well as practical workshops where coaches worked directly with local students from different schools. The sessions discussed a variety of topics including evidence-based best practices in the field, the evolution of practice, the evolution of language and terminology, and an overview on how individuals with different abilities and additional needs engage in sports.

Following the success of this initial programme and the critical need for sports-based options for children on the spectrum in Qatar,<sup>8</sup> in early 2018, the idea of an autism-focused nationwide sports initiative was pitched to QF and was immediately approved for development. By August 2019, the programme was launched exclusively for children on the spectrum. Families with children of other abilities also showed strong interest

and, as a result, the programme expanded to the present-day AF Program. This inclusive programme incorporates a variety of sports activities including swimming and football lessons that are tailored specifically to children on the spectrum but also adapted to cater to a full range of different abilities and ages.

Generally, sessions are offered 5 days a week across the two terms in Education City and in Qatar Academy in Al Khor (a member of Qatar Foundation) two times a week. While each football session is 1 hour long, the swimming sessions are 30 min long; however, most participants tend to book back-to-back classes to total an hour of activity per day.

For football sessions, the participants are divided into two groups: an 'additional needs' group that focuses on individual activities and training in smaller groups with a 1:1 participant to coach ratio, and a 'moderate needs' group that focuses on team-based activities in small to larger groups. One of the main skills that are taught during the football classes is teamwork, where participants are taught to work together to achieve a goal. Another is coordination, where, for example, coloured cones are placed in set locations and participants are given instructions to move from one to the next following a set sequence. Other examples include fitness and movement exercises, where participants are asked to dribble a football the full length of the football court and back again while staying in a specific lane or in a particular order.

The majority of swimming sessions have a 1:1 participant to coach ratio. The participants typically swim either for 30 min (once or twice per week) or they take part in back-to-back sessions for 1 hour. A customised lesson plan is developed for each swimmer per term based on their specific needs. Once they are evaluated (typically during the first few sessions they attend at the beginning of the term), they are then assigned to a skill group. The swimming programme has a total of five skill groups. Depending on the skill level, the sessions focus on activities that encourage the development of core swimming skills. Examples of such activities include safe pool entries and exits, floating, assisted streamline and turns, and so on. The goal of each session, and the term in general, is to teach proper swimming and water safety.

## AF PROGRAM IN NUMBERS

Data have been collected since the programme's inception to capture growth over the years. During the first academic year (2018–2019), the AF Program (for football and swimming classes together) recruited a total of 181 participants (98 swimming and 83 football). These participants were predominantly male (155). The age of participants ranged from 4 to 24 years, with an average age of 7.7. The majority of participants had ASD (159/181). Other ability groups/categories included Down's syndrome (1), hearing impairment (1),

learning difficulties (6) and physical impairment (4). A total of 1188 sessions were delivered over the course of the year, and the programme also had 68 interested participants on the waiting list.

The second year of the programme (2019–2020) witnessed a growth of over 50%, with a total of 348 (210 swimming and 138 football) participants across both swimming and football classes. In addition to Education City, both football and swimming classes were also made available in Qatar Academy Al Khor (a member of Qatar Foundation) two times a week. Of the 348 participants, 235 were women, a significant increase from the previous year due to outreach work that was launched in schools that targeted female participants. The AF Program has since then continued to promote gender equality through these outreach initiatives. The average age of participants during the second year was 8 years old. Again, the majority of participants had ASD (250); 8 had Down's syndrome; 5 had hearing impairments; 26 had learning difficulties; 45 had physical impairments; and 13 had visual impairments. A total of 2703 sessions were delivered in total, with an additional three participants on the waiting list.

Given the COVID-19 pandemic and the associated restrictions on gatherings, the third year witnessed a slight drop in overall number of participants. A total of 332 (225 swimming and 107 football) participants joined both the swimming and football classes, 235 of which were men and 91 women. The average age was 8 years old. Of the 332, 228 participants had ASD; 17 had Down's syndrome; 6 had hearing impairments; 15 had learning difficulties; 54 had physical impairments; and 10 had visual impairments. In September 2021, the AF began offering football classes at a third location, Qatar Academy Al Wakra (a member of QF), three times a week. Even with this increase in capacity, the waiting list for the third year still had 50 potential participants.

## IMPACT

To assess the impact of the programme, a short survey of six questions was designed using Survey-Monkey, launched and distributed to the caregivers of the AF Program participants. A copy of the survey can be found in online supplemental appendix 1. The survey was distributed to the existing database of parents/caregivers, which included 137. The relatively low number of caregivers captured on the database is due to the fact that the database was developed only in September 2021; therefore, caregivers of participants from the previous years were not captured. The survey was made available in English and Arabic and was open from 29 October to 14 November. The survey respondents had to be caregivers of participants of the AF

Program; there was no other criteria for inclusion or exclusion. A total of 61 responses were collected during this time.

The email invitation to participate in the survey included a short paragraph outlining the main aims and objectives of the assessment, and how the data from the survey will be used. The email also ensured that the survey participants would remain anonymous and no personal identifiers were collected.

The survey was designed with the aim to assess the parents'/caregivers' perception of the changes (positive or negative) in their child's behaviour during or following their participation in the AF Program. The results of the survey showed that 96.72% (59 of 61 respondents) noticed a positive change in their child's development, and 3.28% (2 of 61 respondents) noticed no change in their child's development following their participation in the AF Program. None of the respondents reported a negative change.

When asked about the extent of positive change noticed, 45.9% of survey respondents reported a significant change, and 45.9% reported a moderately positive change. Only 4.92% reported that their child's positive development was minimal.

Of the 61 respondents, 34 (55.7%) reported that their child showed signs of higher self-confidence, and 28 (45.9%) answered that their child seems generally more relaxed than usual.

In addition, 20 (32.79%) reported that their child showed an improvement in communication skills; 12 (19.67%) reported that their child had developed more friendships; and 14 (22.95%) responded that their child was noticeably more active at home.

As a secondary, indirect benefit of the programme, the majority (38 of 61, or 63.3%) of survey participants reported that they, the caregivers, had developed new friendships as a result of the AF Program. Similarly, 47 (78.33%) indicated that the AF sessions provided them with respite care/'time off' that they would not have otherwise had if it were not for the programme.

When asked about whether they would recommend the AF Program to other parents with children with special needs, 98.33% responded yes, re-emphasising further the quality of the programme and the increased demand for such services in Qatar.

A visual representation of the results can be found in online supplemental appendix 2. Given the current sample size of the study and the time restrictions, WISH has committed to conducting a further, more in-depth analysis of the impact of the programme in the coming year.

## CHALLENGES

### Redefining the meaning of 'community'

As a first step, QF's definition and perception of the word community required an update. Despite the

shared ambition to include the wider community within its mission and vision, this was not always reflected in practical written guidelines within the organisation which focused largely on QF staff and their dependents as users. As such, a decision to broaden the scope of the QF community to allow for the general public to access QF facilities was straightforward.

#### Breaking stereotypes

Some of the beliefs and stereotypes around disabled people are focused on their abilities, particularly on what they cannot do. Some families struggle to understand football can be adapted to suit the needs of the players, rather than the player conforming to restricted rules of the professional version of the sport. For example, some participants appeared to enjoy the structure and logistical elements of the session, such as placing cones, distributing and collecting bibs and encouraging others, rather than playing the sport itself. Such participation was highly encouraged on the basis that each participant's needs were different.

#### Lack of qualified and experienced staff and sports coaches

The lack of qualified staff was a significant challenge, which was not immediately solvable at the outset of the programme. Following discussions with parents and other stakeholders, the programme made the best use of what was in place at the time. This involved WISH staff taking on the role of general organisers as volunteers, along with existing lifeguards (employed by QF) choosing to work with the ASD community. In addition, only the children's pool was used, thus limiting the risk factors and restricted sessions to what might be described as 'structured play' rather than swimming lessons. This allowed the AF Program to start, while specialist coaches could be recruited in tandem.

#### Integration of the programme to an already 'fully booked' schedule

In terms of integrating the AF Program into the existing schedule, it quickly became apparent that it was neither possible nor desirable to try and identify potential gaps in the margins of the existing schedule. Rather, it was important to embed the AF Program into the mainstream programme—as part of an overall realignment of service provision.

#### Managing numbers and expectations

In terms of numbers, demand quickly exceeded capacity, especially for swimming sessions. As a direct response, sessions were scheduled four nights per week, at a considerable personal effort from volunteers running sessions at the time. In addition, within a few weeks, parents of participants requested swimming lessons from trained coaches. It instantly became clear that demand had quickly outgrown provision and a more structured and permanent solution was required.

#### Shortage of specialist equipment

Adaptive sports technology and equipment are generally expensive.<sup>9</sup> To put this into perspective, standard footballs cost around 50 Qatari riyal (QAR) or 11 British pound sterling (GBP), in comparison to around 260 QAR or 55 GBP for footballs for the visually impaired (with sound devices so players can locate the football through sound<sup>10</sup>), and 270 QAR or 60 GBP for wheelchair footballs, approximately five times the cost of the standard equipment. While these costs were covered by donations, additional equipment is needed as services expand to larger groups of students and other types of sports activities.

#### Internal and external collaboration and high-level buy-in

One of the major benefits of the programme was that WISH was able to work collaboratively with colleagues from the community development department within QF, which oversees the social and sporting element of the Foundation. Therefore, if there was a shortage in staffing, WISH staff could work with the team of coaches to ensure that classes were still running efficiently and safely. When the AF Program reached a natural handover point, the community development team took over the programme to continue to grow the seed that WISH planted. Embracing the AF Program as a key strategic priority, the community development team was able to recruit professionally trained staff to scale up the programme, adding a significant number of classes and ensuring that newly recruited coaches met the needs of the community, including the required language skills to ensure inclusion for all.

#### Funding

As with most similar programmes and initiatives, an initial shortage of funding was identified as a challenge and risk to AF's development and continuity. Fortunately, the programme received a generous donation from a local funder who wishes to remain anonymous. Without this external funding stream, the programme would not be where it is today.

### WHAT WORKED WELL

#### Impact and increased awareness

The impact of the AF Program has been significant and wide ranging. In broad terms, as reflected in the results of the impact assessment survey, the programme has given participants hope, purpose, a healthier lifestyle, structure and, most significantly, friendship among peers—in many cases for the first time. Another benefit has been raising awareness on autism nationally. With the programme now fully integrated into QF's schedule, the AF classes have given Qatar's ASD and differently abled communities the confidence to engage and participate in more events. Conversely, the wider population has become more educated on the needs and requirements of differently abled people, thus creating residual benefits through spin-off



opportunities, such as reading classes and life skills for young adults with autism.

### Funding

As the programme occurred midyear, most existing budget had been allocated, creating funding difficulties. Fortunately, due to the programme's compelling and positive impact to the community, a local donor organisation committed to funding the project for multiple years. This has allowed time for the project to develop, establish and become more self-sufficient. Funding has also allowed for the reasonable pricing of the services, where on average, most team sports are priced at approximately 600 QAR per term (equivalent to 125 GBP). Swimming classes, which require a 1:1 instructor to participant ratio, are priced slightly higher at 92 QAR per hour (19.14 GBP) and 1840 QAR per term (382.66 GBP).

This generous donation also funds the 'Qader Award Scholarship', a scholarship that provides financial support for families in need. The application process for this scholarship commences over the summer period, and a committee of stakeholders has been appointed to review all applications. Approximately 30% of all programme participants are funded through Qader.

### Caregiver support

Support groups and friendships formed by parents are a secondary benefit. The few hours a week that children attend AF classes provide a window of respite for parents. While at first parents were reluctant to leave their children, over time and having built trust and confidence in the coaches and support staff, they have been able to visit nearby coffee shops and restaurants to enjoy their own time, resulting in positive mental health impacts.

### QF support through volunteering programmes

Given that Education City is a campus supported by a number of educational organisations in addition to the residential and recreational facilities, the community development department was able to leverage this access to students from the Education City partner universities through a volunteering programme. Since the start of the programme, 16 students from QF have participated as volunteers.

## OPPORTUNITIES FOR DEVELOPMENT AND FUTURE PLANS

Given the national support and momentum around ASD, limitations for growth and programme expansion will be subject mainly to issues relating to physical space and funding, which can be overcome overtime. A few immediate opportunities for development are outlined further.

### Expansion of services and development of partnerships

Collaborating with the correct partner can dramatically increase the number of opportunities for differently abled individuals. Working with the right suppliers and corporate and international governing bodies can help drive awareness and influence on national and international scales. Earlier this year, QF partnered with external suppliers to initiate a pilot programme that encompassed cricket, playball and art lessons. While these lessons are supplier run and led, they fall under the AF Program and are hosted at Education City. The AF team is also looking to partner with other suppliers for the provision of more classes and activities for a larger number of participants, catering for a wider range of abilities.

### Social development

Currently, differently abled individuals have limited access to quality specialised services. With the right support, the AF Program can help various sectors build on their current services and provide additional opportunities. This will allow for a more inclusive, more integrated environment for this underserved population.

### Local capacity building

Building local capacity through the development of a training-of-trainers scheme for coaches and teachers is crucial to ensure the longevity, development and long-term impact of the AF Program. While the AF Program has done this relatively well so far, there is definitely more work to be done in order to ensure that this programme grows beyond QF and becomes an initiative at a national scale.

### Strategic plans

There is an obvious and striking need for the development of a strategic plan that sets a clear mission and vision for the programme, lists ambitious yet achievable goals and targets for the coming decade, identifies mechanisms for the continuous monitoring and evaluation of the efficacy and impact of the programme, and identifies key performance indicators. A concise and clear strategic plan that is revisited and reassessed annually will drive responsibility, leadership, ownership and accountability, and ensure that goals remain on track.

### Evaluation of the programme and impact assessment

There is currently a glaring gap in the proper assessment and evaluation of the impact of the programme. While the WISH research and content team was able (for the purposes of this paper) to conduct a short survey to obtain a general overview of the impact and efficacy of the programme, a more in-depth and continuous assessment is needed. The WISH research and content team will work closely with the AF team to do so in the coming year. This

feedback will help drive development and quality improvement. There is also potential to collaborate with Education City partner universities on the monitoring and evaluation of the programme, which will be explored in the coming year.

#### Partnership with FIFA

In November 2021, following a visit to QF and the AF Program, FIFA President Gianni Infantino announced a new partnership between the FIFA Foundation and QF focused on ‘inclusivity and engaging young people of different abilities through sport’. This partnership could be leveraged to further grow the AF Program. From a legacy perspective, this partnership has pushed other programmes and areas of provision to consider the accessibility of their programmes and how they can become more inclusive. More research is needed to assess the impact of this partnership on the legacy of inclusivity and sports beyond the World Cup.

#### RECOMMENDATIONS

Given the global shortage of opportunities and services for individuals with disabilities, and lack of opportunities for respite care for caregivers, the exchange of ideas and best practices in these fields are extremely important. Even though exact replication may not be feasible, as the adoption of programmes and models are context-driven (be it setting, culture or funding), there are a few key, generalisable recommendations from the AF Program that are universally relevant and applicable.

1. There will be hurdles; it can be difficult; do not take no for an answer. If there is public demand, we have a duty to make things happen, particularly for the most marginalised in society. Barriers to success should be seen as opportunities to make a difference.
2. Avoid a vertical approach. Programmes should be integrated from the outset, and a systemic base should be created to ensure long-term success.
3. Invest in people. Take the time to find the right coaches—and to recruit willing volunteers. Programmes can only ever be as good as the individuals behind them.
4. Identify innovative funding streams. Ideally, a programme will be funded through regular funding streams as part of annual business planning. Where this is not possible, look to outside funding opportunities and the possibility of corporate social responsibility routes.
5. Work collaboratively. Identify all relevant parts of an organisation and wider stakeholders that have a role to play at an early stage. People and organisations are far more likely to be willing to contribute to a programme they have helped to build.
6. Assess impact and efficacy of programmes. Only through constant and continuous evaluation of impact and efficacy will the programme truly develop and expand. Data collection is critical not only for internal purposes but also to help build credibility, secure and sustain funding, and foster new partnerships.
7. Focus on capacity building. For programmes where there is an incredibly high unmet demand for services, building

capacity is crucial to ensure equitable and fair access to those in need. It also guarantees the longevity of the programme.

#### CONCLUSION

Given the novelty and unique scope of the AF Program, there is much to be learnt and much to learn from. In an aim to provide support and guidance for individuals and organisations looking to develop similar initiatives in their country, this paper outlines the major challenges, mitigation strategies and recommendations for those looking to follow suit. While the challenges will undeniably vary between different contexts, the main challenges, such as funding and lack of resources, are universal. Therefore, it is all the more imperative that we raise awareness on the importance of these programmes and their impact on society to drive future interest, investment and innovation in the field.

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#### REFERENCES

- 1 Munir KM, Lavelle TA, Helm DT. Autism: a global framework for action, 2016. Available: [www.iofbonehealth.org](http://www.iofbonehealth.org)
- 2 Wilson PE, Clayton GH. Sports and disability. *Pm R* 2010;2:546–54.
- 3 van der Ploeg HP, van der Beek AJ, van der Woude LHV, *et al*. Physical activity for people with a disability. *Sports Medicine* 2004;34:639–49.
- 4 Jaarsma EA, Dijkstra PU, Geertzen JHB, *et al*. Barriers to and facilitators of sports participation for people with physical

- disabilities: a systematic review. *Scand J Med Sci Sports* 2014;24:871–81.
- 5 Schmid SM, Short CT, Nigg CR. Physical Activity & People with Disabilities - A Qualitative Process and Outcome Pilot Evaluation of the Non-Profit Organization AccesSurf Hawai'i. *Hawaii J Med Public Health* 2019;78:52–60.
  - 6 Macdonald M, Esposito P, Ulrich D. The physical activity patterns of children with autism. *BMC Res Notes* 2011;4:422.
  - 7 alwaba. Wish collaborates with Liverpool Fc Foundation to enhance sports coaching for children with autism in Qatar, 2017. Available: <https://www.alwaba.com/business/pr/wish-collaborates-liverpool-fc-foundation-enhance-sports-coaching-children-autism-qatar> [Accessed 10 Dec 2021].
  - 8 Kheir NM, Ghoneim OM, Sandridge AL, *et al.* Concerns and considerations among caregivers of a child with autism in Qatar. *BMC Res Notes* 2012;5:290.
  - 9 Cooper R. The equipment our disabled athletes need, 2021. Available: <https://www.governing.com/now/the-equipment-our-disabled-athletes-need> [Accessed 10 Dec 2021].
  - 10 Fix G. A guide to blind football, 2020. Available: <https://goalfixsports.com/news/blind-football/> [Accessed 10 Dec 2021].