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Presentation Transcript

Topic: Skills, Strategies, & Opportunities to Promote Participation in Physical Activity & Sports: Perspectives from Occupational Therapy

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Jannah: Good morning everyone. My name is Nurul Jannah and I'm from Tan Tock Seng Rehab Centre.

Gabriel: Hi everyone. My name is Gabriel and I'm from Singapore Institute of Technology. So, today myself and Jannah will be sharing about occupational therapists' point of view with regards to promoting participation in physical activity and sports.

Jannah: I will first take you through the current trends supporting the importance of physical activity and sports participation for persons with disability and its impact on healthcare. NHG has three key waves as the main drivers of healthcare utilisation and cost. The first wave which I did not highlight here is frailty, in view of our ageing population.

Jannah: The second wave would be the rising prevalence of chronic diseases. According to local statistics, the number of stroke and diabetes patients is expected to increase by 109% and 87% respectively by 2050. Which means that we are expecting an increase of people with acquired disabilities, who will then be at higher risk of being frail and contributing to the first waves impact on healthcare.

Jannah: The third wave we expect to encounter in healthcare is a population who indulges excessively in poor lifestyle habits, which can further increase the risk of developing chronic diseases and again, further contributing to the first and second wave. However, we are well aware that lifestyle risk factors are modifiable, and if addressed adequately, can improve overall health and reduce risks of developing chronic diseases or prevent further progression. Some of these lifestyle risk factors include obesity, unhealthy diet, smoking and sedentary lifestyle.

Jannah: As occupational therapist, we are able to collaborate with our clients to work on a variety of lifestyle components towards improving overall health and quality of life. However, for this presentation, I will focus on physical activity.

Jannah: To set the stage, the Health Promotion Board defines physical activity as any force produced by skeletal muscles that results in energy expenditure above resting level. Now, if you can see the photos that are included inside, we have our fellow amputee patients doing rock climbing during one of the amputee support group events.

Jannah: There are various sources that we can look at for the recommendations of physical activity participation. For the purpose of this presentation, I'll be referencing recommendations from World Health Organisation as they have nicely categorised their recommendations according to different population groups. For adults and older adults with chronic conditions and living with disability, it is recommended to do at least 150 to 300 minutes of moderate intensity aerobic activity, or 75 to 150 minutes of vigorous intensity aerobic activity throughout the week.

Jannah: For additional benefits muscle strengthening activities at moderate or greater intensity that involves all major muscle groups is recommended on two or more days a week.

Jannah: Also, as part of their weekly physical activity, older adults with chronic conditions or disabilities should do a varied multicomponent physical activity that emphasises functional balance strength training at moderate or greater intensity on three or more days a week to enhance functional capacity and prevent falls.

Jannah: The benefits of physical activities is plenty and WHO guidelines on physical activity and sedentary behaviour has actually nicely defined these benefits according to different diagnostic groups. For example, for people with stroke, physical activity can positively impact on health through improvements in physical function, balance, walking speed, distance, ability, endurance, cardiorespiratory fitness, and improving overall mobility and activities of daily living.

Jannah: As healthcare professionals, we know what health management is supposed to look like and we know the positive impact that partaking in health promoting activities can do to the body. However, what does health management mean to persons with disabilities? In 2018, we did a focus group in Tan Tock Seng Rehab Centre with a group of community-dwelling amputees and what we learnt, which is nicely summed up in the direct quote shared in this slide is that the participants had the knowledge on how they can take care of their health but knowing does not necessarily translate to doing.

Jannah: The participants of the focus group were able to articulate health promoting concepts such as being active, be it through sports or engaging in activities to prevent being sedentary, and also having a balanced lifestyle. However, during the focus group we were not able to sense the actualization of these concepts from the participants.

Jannah: Through the focus group as well, we learned that there were indeed some facilitators to participating in meaningful activities or even health promoting activities. And these were the ability to have a continued life narrative after an acquired disability. These include having a sense of being through the resumption of value growth, which encourages a sense of accountability to others. Being able to envision a future self was also helpful in motivating them to take care of their health.

Jannah: If you have realised these aspects brought up by the amputees is actually much more about the psychosocial aspects of their life, rather than content knowledge, or physical barriers. It got us to think about how we usually provide care at the ward level and if we really want to push for increased participation as most times we tend to focus mainly on physical aspects of mobility and home preparation, with less emphasis on the social belonging aspects, which falls under enfranchisement and empowerment aspects such as peer led befriending. This renewed focus allows us to review other key skills that is needed to be incorporated such as disability identity formation, self-advocacy and assertiveness, care coaching, and self-management within valued occupations.

Jannah: We thought that to help everyone better understand how these different factors come together, we would like to introduce everyone to the Physical Activity Model for people with disability which comprises of three main components, which are personal factors, environmental factors and levels of physical activity function. With our findings and experience, we will scope and centre our quick tips and strategies today to promote participation in physical activity on just two core aspects, which are the personal factors that will be covered by myself, and environmental considerations that will be covered by Gabriel later. Under personal factors determinants that influences participation in physical activity, it includes the health condition, intention, and attitude towards physical activity, self-efficacy, and personnel, facilitators and barriers. Severity of health condition matters because often, the primary disability itself becomes a barrier to physical activity. Attitude refers to what the client thinks about physical activity and their perception about how it can positively impact their health and body. Intent refers to whether or not the client even has the intention to engage in physical activity. If there is no intent, the behaviour will not take place. If there is intent, however, then having self-efficacy, environmental and personal facilitators in place can then lead to actual behaviour taking place. All these then forms a feedback loop that interacts with one another.

Jannah: Essentially, what we are hoping for is that physical activity becomes incorporated into their daily habits and routine of a person with disability. Charles Duhigg studied the science of habit and involves identifying and deconstructing the habit loop.

Jannah: The framework is to form or change a habit consists of four main steps. One, is to identify the routine or habit that you want to form or change. Two, experiment with rewards. What do you gain from engaging in that routine or habit? Or rather, what do you hope to gain from a new habit that you want to engage in? Number three, isolate the cue, what triggers you to engage in that routine or habit. And lastly, have a plan in mind.

Jannah: For example, if we want to form a new habit of exercising in the morning, our identified desired routine or habit would be morning exercise, our reward would be that we want to feel fresh and accomplished in the morning. The cue that we can establish is preparing the exercise clothes right next to our bed the night before so that the moment we wake up, the first thing we see is to exercise outfit. So, the habit loop will then look like this. Wake up in the morning, see the exercise outfit right next to the bed, bring the toilet and change, go for the exercise and finish exercise feeling fresh and good.

Jannah: However, I think we all might have encountered a situation where no matter what we do with the client, it still does not result in a change of behaviour. Well, this could be because the client is not ready for change. According to the PAD model, there is lack of an intent from the client's end. This phenomenon can be explained using the transtheoretical, also known as the stages of change model. If the client is a pre-contemplation stage, he is currently inactive and have no intention to become more active in the next six months. Clients in the contemplation stage are also inactive, but there is intention to become more active in the next six months. In the preparation stage, the client might be physically active but not regularly. In the action stage, the client might be regularly physically active but have only started in the last six months. For those on the maintenance stage, the client is physically active for at least six months. The status of change does not move solely in a linear fashion. We need to be cognizant that sometimes someone can go back and forth between the different stages.

In this slide, I will be briefly sharing about examples of characteristics within each stage of change and possible strategies that can be applied. Someone in pre-contentious stage might be saying things like "I don't need to exercise", "I am Ok" because they are unaware of the issues, or they might be avoiding thinking about the issues at hand. For people within this stage, the focus will be on educating on the risks versus benefits, educating on the positive outcomes of the particular desired behaviour. And the goal is to help them be more informed at their pace. Someone in the contemplation stage might be able to articulate the benefits of exercise, but there is also a counter argument for that. For individuals in this stage, we can identify their barriers, address their concerns, clarify misconceptions, identify support system. The goal in this stage is to help tip the balance towards the desired behaviour. Someone in preparation stage will say things like, "I'm thinking I might start taking nature walks next month".

And what we can do in this stage is to facilitate a developing plan. Doing goal setting with them and initiate timeline for change and also providing positive reinforcements. People in action stage might say things like “I exercised for 30 minutes last Saturday”. These are the people that are actively engaging and how we can support them is by viewing their change expectations. And then review any technical information with regards to the specific habit and refining the goals. Lastly, for those and maintenance stage, they have already been exercising consistently. And for these groups, we can provide positive reinforcement, encouragement and support, and it will be good to develop contingency plans to prevent any relapse.

Jannah: Before I hand over to Gabriel, just a recap, the key thing to remember up to this point is that context is key. Understanding your client's life roles, daily habits and routine is essential before trying to introduce anything new. Also, having an understanding of the client's readiness for change and the value system that drives them will allow you to have a more targeted approach.

Gabriel: Thanks, Jannah. So, I will now be moving on to the examples with regards to the environment level. So as Jannah has nicely brought out, there are quite a number of things to consider within the personal level. As for the environment, we often can see that the reason why we need to address them is because, people usually within the content or preparatory stage of change, they tend to place more emphasis on environmental barriers. For example, “Oh, it's so hard to get here”, or “I don't really know what I can do”. Or “maybe when I go out, you know, there are people staring at me” and all this different sort of barriers are often deemed by them as is quite external to them, they don't think they can control it.

Gabriel: And fortunately, that is where healthcare professionals like us can come in. Because these barriers are actually amenable to change. Professionals like ourselves, we can play important roles in influencing change by moving beyond our typical interventions that is looking at the immediate environment of the person and really expanding it to other levels, which can include, for example, community or mesa level, such as finding and sorting out where the nearest and most accessible physical activity locations are, information access points, social networking opportunities, and also integrating peer learning and social learning self-efficacy groups into our different service settings. Now, if we were to go one up into the macro level at the society level, we can also intentionally be involved and participate and seek out opportunities at the system's policies and national association and even research levels so that we can influence more inclusive practices and societal development. Now in the following slides, we will share how some of these opportunities can be realized, not just for professionals but also for caregivers, persons with disabilities, so that you can actively bring this up to your healthcare team. Now, in the first example, common interventions at the micro level that OTs, like myself typically conduct, we may do it in the classrooms, we may do it directly with the individuals. As you can see, for example, in Rainbow Centre, they use assistive technology such as switches to enable students with physical disabilities to play basketball with the rest of their class.

It may also involve for example, when we work with amputees, coming up with modified paddles for kayaking, for those who have upper limb amputations, fabricated splints for with prosthetic hands so that they can actually hold the table tennis pedal properly and be able to strike. Now at this level, it is usually still at a very personal level. This is what we can do in terms of being able to support persons with disabilities to participate in physical activity or sports.

Gabriel: Now at the next level, the mesa level, interventions will need to move beyond the individual to organisational or community level. Now, this will entail formulating specialised inclusive programmes, working together with disability sports organisations to create opportunities for engagement in physical activity. Now, some organisations have also started peer visitor programmes as persons with disabilities often find it easier to relate to another person with disability, community outings to ActiveSG gyms that are inclusive, volunteer trainings are also examples of community level interventions that can help reduce the barriers commonly mentioned by persons with disabilities.

Gabriel: Now at a macro level, this is when we can actually, like we mentioned influence societal attitudes policy plans, so there's a different level of change. Now, usually we may think it is a little bit harder to do so but actually, there are multiple platforms that we can get engaged in.

Gabriel: Some examples that we have highlighted here includes we worked with Singapore Association of Occupational Therapists to look at public education on disability advocate for public transport use. There are also other growing opportunities in the field.

Gabriel: For example, health care professionals like us can also be trained to be para sports classifiers.

Gabriel: Or we can also get our clients along for a national level initiative such as inclusive sports events. And so that we can also raise their awareness and get them to feel like they belong to a community.

Gabriel: Now, while there are different opportunities for us to effect change, the other tougher part is also sustaining the change. Yeah, because it really requires us to be more concerted.

Gabriel: Now some learning points we can gleam from studies looking at physical activity overseas includes highlighting the need to integrate programmes into the context or routines of the hosting centre, meaning for example, it should be one of the core programmes in your Rehab Centre and there should be clear referral pathways. At the same time, if you really want to achieve that, that means we need leadership support at the centre. But at the same time, the studies have also shown national level integration and pot will be really helpful. And this is something worth considering for those who are interested to expand sporting initiatives or programmes across different rehab centres.

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Gabriel: Now, locally, we also had an exploratory study done on disability sports programmes, and they actually investigated the volunteers' aspect of disability sports programmes. And some of the things that volunteers and staff have mentioned, that really keeps them going would be proper induction, promoting a sense of community and belonging, catering to different motivations, such as the impact is delivered with the clients and the personal development of the volunteers themselves.

Gabriel: Now so this next slide contains some of our own experiences in how we structure our volunteer training. We intentionally included other organisations such as Table Tennis Association for the Disabled Singapore and we also ensure that our volunteers were trained, for example, using the National Council of social services, understanding persons with disabilities guidebook, so that they could really appreciate the challenges and strengths of working with persons with disabilities and motivating them.

Gabriel: As our programme grew, I think one of the things that we really looked at was how could we increase that ownership of that programme with our volunteers. So, as you can see in our pictures, we integrated some of the physical activity and adaptive sports programme with multi component, multi-level environmental design. This includes things like having the posters up across the whole Rehab Centre, making sure we had a volunteer training guide, really even coming up with a co creation journey with the volunteers. So, this was something that had a lot of good feedback. And we are looking at now extending this also with the persons with disabilities themselves, so that we can really embrace and reinforce some of the strategies that Jannah has highlighted above with regards to the PAD model. We really hope that in our journey forward, we will be able to encourage everyone especially the persons with disabilities to be part of this journey in participating in more physical activity and sports.

Gabriel: With that, thank you very much and we look forward to sharing other stories in the future.