

Testing the effects of Covid-19 confinement on the socialisation behaviour of Saudi children in 4-10 years age group

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Abstract

The covid-19 pandemic has disrupted the day to day lives of people around the world. Billions of people have been locked down in their homes as governments' aggressive and sweeping measures to contain the spread of the virus. The impact of this prolonged home confinement is expected to be high on certain vulnerable groups of individuals such as young children. This research investigated how covid-19 confinement has affected the socialisation behaviour of children. Qualitative data was collected using focus groups with 49 parents and primary school teachers. The findings indicate that the covid-19 confinement has affected the socialisation behaviour of children. In the period immediately after the lockdown, children were reported to exhibit reduced activity, playful behaviour and inquisitiveness. They were exhibiting signs of social alienation as they interacted less with people outside their families. The interaction barriers imposed on them to shield them from the virus has begun to erode their ability to explore and learn by interacting with the unfamiliar outside world. This research also finds that increased usage of digital devices has filled the void created by the lack of usual day to day routine things and play activities. The worrying sign is the continued usage and, to some degree, increased dependency on these digital devices. Children are spending more time on these devices and beginning to develop a habit of digital interaction instead of face to face interaction.

Keywords: Child psychology, socialisation, Saudi Arabia, 4-10 year old, Covid-19

Introduction

Covid-19 pandemic has affected human society at a scale that no pandemic has done before. Owing to a more interconnected and fluid human population the pandemic spread quite rapidly across the globe leading the governments to adopt serious and extensive measures such as complete lockdowns across all sectors of society and economy. Billions of people around the world have spent months living in complete lockdown and it has affected individuals socially, economically and psychologically (Romero et al. 2020). The inability to live a usual and regular lifestyle has impacted all individuals but the extent of the impact depends on several factors such as their socio-economic circumstances, cognitive abilities and ability to restore some regularity in their lives through lifestyle changes.

During the covid-19 pandemic, Children were one of the worst affected sections of the population; following the onset of the pandemic children were required to stay home and attend classes from home for over a year now. This has severely limited their social interaction with other individuals. Their limited understanding of the circumstances combined with their limited cognitive abilities to make sense of the restrictions placed on their movement and socialisation as well as abrupt disruption to their routine life may lead to emotional stress on children. Furthermore, the psychological impact of covid related confinement on children has been poorly researched (Xie, et al. 2020). However, knowing this is key to better managing their psychological and mental wellbeing in such a restrictive environment (Romero, et al. 2020). Socialisation behaviour here refers to the children's behaviour towards forming friendly and secure relationships,

regulating and expressing their emotions, responding to the expressions of others, expressing empathy towards others etc.

As experts warn, human society could face many such pandemics in the future (Penn, 2021), which effectively means that we need to prepare ourselves for more such disruptions in future. This, in turn, will help us mitigate the impact of such pandemics on one of the most vulnerable sections of our society. Furthermore, it will also help minimise the long-term impacts of such crises on children.

Literature Review

Impact of Covid-19 on Parents and Children

The covid-19 outbreak affected the population of the world in different ways. Due to the rapid spread of the disease and high rate of fatality, World Health Organisation announced Covid-19 as the pandemic and an international health crisis. One of the immediate effects of Covid-19 was the fear and uncertainty that engulfed all sections of human society. Social distancing measures, restrictions on movement and travel, as well as complete and sudden lockdown of businesses and educational institutions came as a total surprise for people around the world. According to Idoiaga et al. (2020), children represented a very limited number of cases of Covid-19, and the majority of the children were found to be asymptomatic or presented mild symptoms of Covid-19, yet their health and well-being became the main concern for families. Children at school were considered at high risk because of their poor immune systems and high vulnerability. Thus, there was a high risk of hospitalisation and fatality among children. Furthermore, due to the school environment where maintaining social distancing is almost impossible and many students share the same classroom and other facilities for a longer period, there was always a high possibility of school children becoming super-spreaders of covid-19 (United Nations Educational, Scientific and Cultural Organization, 2020). As a result of these assumptions, schools were closed around the world and children were forced to confine to their homes.

While some of the countries were significantly affected by the Covid-19 pandemic and had to

impose harsh restrictions on people, many countries did so voluntarily to minimise the spread of the virus in the local population (Grechyna, 2020). Schools were closed indefinitely and studies were suspended. Such sudden lockdowns had a lasting physical and emotional impact on children (Grechyna, 2020). Due to pandemic and compulsory lockdowns, children were deprived of going to schools, parks, sports activities as well as in community gardens (Idoiaga et al., 2020). This essentially deprived them of all interaction with non-family members. The parents were suddenly dealing with their challenges as many lost jobs, many were confined to work from home whilst also managing their children. Many of the parents had faced unemployment, or cut-downs of salaries, as well as the trauma of the death of a family member or relative, which made it difficult for them to manage children all the time (Morelli et al. 2020).

Patrick et al. (2020) found that Covid-19 has resulted in causing psychological distress for the parents, specifically because of the Covid-19 situation and also because of the risk index. Patrick et al. (2020) further informed in their study that 27% of the parents who participated in the survey reported poor mental health for themselves, while 14% reported poor mental health for their children. Parents also experienced a higher level of stress, because of the fear for their children's safety, protecting children from excessive exposure to distressing news reports, and imposing harsh parenting to protect children from unfavourable outcomes (Chung, Lanier & Wong, 2020). This evidence informs that the Covid-19 pandemic has a tremendous impact on parents as well as on children, and also resulted in generating unique emotional needs for them.

Psychological Impact of Covid-19 Confinement on Children

Covid-19 lockdowns confined people to their homes leaving them with only digital channels to connect with other people; the use of applications like Zoom skyrocketed as organisations and individuals sought alternatives for face-to-face interaction in covid-19 lockdown situations. Covid-19 pandemic and social distancing measures had a significant repercussion on the daily life of children and families. Children were especially affected as they were suddenly deprived of all the

socialisation activities and play spaces (Xiang, Zhang & Kuwahara, 2020). This caused a significant level of psychological distress for the children as parents became the only point of reference for children, as all other references, their teachers, and friends were no longer available for them (Fore, 2020). According to Jiloha (2020), psychologists, paediatricians and educators had significantly warned about the negative emotional and psychological impact of Covid-19 confinement on children. Studies have further informed that confinement and closure of schools also resulted in disrupting the daily routine of the children, such as eating and sleeping habits, as well as also increased the fear of situations among them (Wang et al., 2020). Covid-19 confinement also increased the screen time of the children, which is often considered as one of the significant reasons for poor psychological health among children. One of the key issues here is that while children can learn a lot of things digitally, they do not interact with digital characters in the same way as they do with real people. For example, they may take online classes from their teachers online but the interaction between the student and teacher is somewhat different in a physical classroom than in a digital class. Such interaction is essential for behavioural development among children.

Al-Balushi & Essa (2020) identified that quarantine and social confinement has resulted in increasing violent outbursts and stress among children. Specifically, in families, where parents are working from home, children get limited opportunities to get involved in play activities, which increases their stress levels. Graber et al. (2021) stated that outdoor play is the fundamental part of childhood, which was restricted because of Covid-19 confinement that may also result in causing post-traumatic stress disorder in case of lack of play activities. The first study to report the impact of the Covid-19 pandemic on children was conducted in China, which reported 17.2% of children to be experiencing anxiety and 22.6% experiencing depression, which is significantly higher in comparison to regular social conditions (Xie et al., 2020). Saurabh & Ranjan (2020) reported in their research that children who were quarantined displayed more psycho-social problems in comparison to those who were not quarantined.

A systematic review and meta-analysis conducted by Panda et al. (2021) identified that Covid-19 confinement has increased psychological problems among children which include, mood swings, lack of attention, irritability and sleep disturbance. Boredom was identified as the main reason for psychological problems among children. An earlier study conducted by Denis-Ramirez, Sørensen & Skovdal (2017) analysed the psychological effect of Ebola-related confinement and stigma on children in the Middle East and identified that psychological problems were highly prevalent during the health crisis. Thus, it is also evident in the case of the Covid-19 health crisis. Bobo et al. (2020) also identified similar findings in the case of specially challenged children and informed that children suffering from Attention Deficit Hyperactivity Disorder (ADHD), displayed an increased level of anxiety and depression during Covid-19 confinement.

Impact of Covid-19 on Socialisation Behaviour of Children

Children learn socialisation through their day to day interaction with other individuals. This is essential for their long term behavioural development. A study conducted by Ghosh et al (2020) informs that children are less susceptible to Covid-19 infection, and even if some children are infected, they display mild symptoms and less morbidity. Some significant reasons behind this are healthier respiratory symptoms among children, less prevalence of co-morbidities and more outdoor activities. However, Ghosh et al (2020) further stated that social confinement has increased the psychological burden, which “*imposes immediate and lingering psychosocial impact on children due to drastic change in their lifestyle, physical activity and mental excursions*” (p. 227). Saurabh & Ranjan (2020) reported in their research conducted on Indian children that for the appropriate physical and psychological development, regular social interaction and companionship are important for children, and the risk of psychological disorders increases when children are separated from their social connections. Saurabh & Ranjan (2020) further reported that children displayed feelings of fear, helplessness, nervousness and annoyance, which would impact their socialisation behaviour in future.

de Figueiredo et al. (2021) informed that behavioural problems among Brazilian children had increased during the Covid-19 pandemic, as children's social interaction was reduced, while anxiety and irritability increased. Children at psychological risk, displayed a higher level of behavioural problems, as the interruption in education, social distancing, and uncertainty about the future impact on the emotional development of children that may also impact their socialisation behaviour and skills. Yeasmin et al. (2020) conducted a cross-sectional study to analyse the impact of the Covid-19 pandemic on children aged 5-15 years in Bangladesh and informed that children living in urban areas were at higher risk of mental health problems because the lockdown was strictly maintained in urban areas, in comparison to rural areas.

Chandio & Ali (2019) informed that social interaction and socialisation activities in childhood help in developing the socialisation behaviour of children in later life. A recent study conducted by Dosbenbetova et al. (2020) also argued that socialisation in the early life of children is important for emotional, intellectual and personal development and interruption in social interaction opportunities can affect intellectual socialisation behaviour of children in later life. Socialisation is probably the most essential part of a child's personality development. However, stress, anxiety and depression in childhood can impact personality development in children. Prime, Wade & Browne (2020) have also argued that Covid-19 related confinement can make a psychological adjustment to be difficult for children.

Crawley et al. (2020) considered children in the UK as part of collateral damage during the Covid-19 pandemic, like social isolation, lack of educational and social support is increasing psycho-social problems among children. Pizarro-Ruiz & Ordóñez-Cambor (2021) analysed the impact of Covid-19 confinement of children in Spain and identified that Spanish children between 8-18 years displayed emotional and behavioural changes, such as higher levels of anxiety, depression, sleep disturbance, poor appetite, damaged social interaction and lethargy. Forbidden contact with friends, restriction on social group activities and loss of education and daily routine resulted in causing massive stress for children, thus impacting their socialisation behaviour (Pizarro-

Ruiz & Ordóñez-Cambor, 2021). Therefore, this evidence has informed that Covid-19 related confinement, social isolation, lack of peer support, unsupportive parenting, lack of structured routines and closure of schools have resulted in increasing psycho-social problems among children aged between 4-12 years, which would also impact their future behavioural, emotional and physical development.

Impact of Covid-19 on Socialisation Behaviour of Children in Saudi Arabia

Covid-19 pandemic resulted in compulsory lockdown and confinement in all most all countries of the world including Saudi Arabia. Sayed et al. (2021) conducted a cross-sectional survey for children and adolescents in Saudi Arabia to analyse the psychological problems and post-traumatic stress disorders (PTSD) among children. The findings of the study informed that around 71.5% of participants of the survey displayed the symptoms of PTSD during quarantine, out of which 44.1% were children aged 6-12 years. Findings further informed that confinement resulted in increasing distress, especially among those children who had no social interaction, and their parents were working. A study conducted by Romero et al. (2020) argued that according to family system theory, stress being experienced by one of the parents can result in disrupting the whole family system, which means parental stress can also increase stress levels for children. Romero et al. (2020) further state that "*parenting distress could have specific triggers, like space restrictions at home, difficulties in keeping children safe and busy and, overall, difficulties in meeting children's needs and demands whilst coping with their emotional problems*" (p. 4). Therefore, the psychological problems and dysfunctional parenting can result in increasing the problem of poor socialisation behaviour development among children (Shea & Coyne, 2011).

Hanbazaza & Wazzan (2020) informed that Covid-19 lockdowns not only affected the health behaviour of the children in Saudi Arabia but also impacted their social and psychological behaviour. Meraya et al. (2021) informed that parental psychological distress during Covid-19 had a significant impact on the behaviour of children. For example, mothers' fear of their children contracting the disease increased their stress, frustration and helplessness, which

further resulted in increased stress and psychological burden for their children. Psychological burden at a younger age can also result in social withdrawal and social isolation for children (Imran et al., 2020). Lack of parental interaction, lack of indoor enjoyable activities, lack of social interaction, results in increasing emotional, intellectual and behavioural problems among children (Alshehri & Al Agha, 2021). Therefore, a wide variety of evidence has shown that pandemic has not only affected adults, but it also had a significant impact on children. Covid-19 confinement has affected the emotional, mental and socialisation behaviour of children, which may have a long-lasting effect on their psychological health and well-being.

Qualitative research

There are several scales developed to evaluate the social and emotional development of young children. However, there are some issues with the use of such scales. Firstly, the behaviour of the children is highly contextual and quantitative assessment does not fully capture the contextualisation of children's behaviour. Secondly, these scales can be useful in evaluating the socialisation behaviour of children but their effectiveness in evaluating the impact of covid-19 confinement on children's behaviour is doubtful. To be able to use these scales, we will need to evaluate the children's socialisation behaviour before and during covid-19 confinement. Since no retrospective data is available for Saudi children it is not possible to use these scales for this research. Finally, these scales do not provide a causal link between confinement and socialisation behaviour. Due to these reasons, it was considered appropriate to use a qualitative approach for this research.

Qualitative data was collected using eight focus groups with 49 parents and 9 pre-school teachers. Teachers and parents have the direct first-hand observation of children in their school and home settings where children spend most of their time. Parents represent the insider and the teachers represent the outsider perspective on children's behaviour. Focus groups were selected because of these help in eliciting responses from individuals. In one-to-one Q&A sessions, the respondents may be unsure of what kind of response to provide but in focus groups,

participants can take cues from the responses of other participants and provide their responses. 8 Focus groups were organised; 7 focus groups comprised of seven parents each and one focus group comprised of 9 pre-school teachers teaching in primary schools in Riyadh, Saudi Arabia.

Participants of each focus group were selected as per their convenience. Each participating parent was requested to pick and time and location slot from the available ones. Each slot was made unavailable for further selection as soon as seven participants opted for the respective slot. The identity and profile of the other participants were kept confidential till the time of the focus group to ensure it did not influence their choice of the focus group. At the time of initial contact seeking their participation in the focus group, participants were given an information sheet containing details of the project and a sample of questions that will be asked during the focus group. This ensured that the participants were well prepared for the focus group maximising the information that could be extracted during each focus group.

Findings

Data from the focus group was analysed using both qualitative and quantitative techniques. Respondents were first asked whether they believed that covid-19 confinement affected children's behaviour. 84% of the parents and 89% of the teachers agreed that covid-19 confinement has affected children's behaviour. In particular, most of the parents noted that the children are less active (80% parents, 89% teachers), quieter than before (65% parents, 78% teachers), less playful (63% parents, 78% teachers). Many parents (39%) suggested that their child shares less information with them compared to before while all of the teachers suggested that children seem to be less curious than before. This sharing/exchange of information is key to the personal knowledge and development of children but covid-19 seemed to have affected their ability to have a conversation with other individuals. One of the teachers noted:

During covid-19 teachers were using phones and iPads to learn. They had lesser interaction with these devices. They seem to be losing their

ability to ask questions verbally to other individuals.

It is not clear whether covid-19 confinement has affected the inquisitiveness of children but most respondents (53% parents, 89% teachers) noted that children seem to be asking fewer questions probably because they are getting used to getting information from digital sources rather than from other human beings.

The respondents were then asked to reflect on the interaction skills of their children with other individuals in the house. The responses of the parents varied according to the kind of household. Individuals who came from large families with many children indicated that their children could play with other children in the family and seemed to have enjoyed their time. On the other hand, children in smaller families seem to have had issues in developing interaction skills. One such respondent commented

My daughter would not even talk to her aunt. She used to play with her earlier but now when my sister visits, my daughter would just say hi and sit there.

My kids (one daughter and two sons) used to play in our neighbour's garden because they have some swings and a kind of treehouse. Now no more. I tell them to go and play there but they are more into playing mobile games now.

The respondents, therefore, suggested that children are somewhat reluctant to interact with individuals outside the family. Teachers also suggested that students in their classes are not interacting with their peers as much as before. One teacher noted

I noticed that even those we thought were best friends was acting like strangers when they came back to school after covid. It is like they forgot how to play with them.

During the covid, most children spent most of the time at home interacting with only their family members. They had little or no contact with their friends from school or from outside. With a shorter memory span, it is possible that children forgot about those friends or they somewhat forgot to interact with non-family members.

Not all parents and teachers supported this view. Some respondents also indicated that the

students seemed quite excited to return to school.

My daughter was so so happy to know that she is finally going back to school and going to meet her friends again. It was like she is getting out of prison.

I could see the kids quite excited to be back to school. I could see the joy on their faces. They missed their school a lot.

Respondents were asked whether they noticed any change in the children's behaviour regarding making friends. One of the teachers commented:

I know some children who used to be very good at mixing with others. They always spoke to the new kids who joined the class and made friends very easily. But after lockdown, I see some change in their behaviour; like they mostly talk to their friends.

One of the parents also noted:

My son was very extroverted; made friends so easily. Even with adults, he could talk without hesitation. He still does it but he is definitely shy than before.

Most of the respondents (53% parents, 89% teachers) suggested that they have noticed this difference as children are less likely to speak to people outside their social circle. The main difference noted was in their behaviour to speak to unknown kids and make friends. The scores do not show the full scale of his impact because for many parents their kids were already introverted so they may have not noticed any difference. But over 50% of the parents suggested that their child is more introverted compared to before. 89% of the teachers confirmed that there is a marked difference in children's behaviour. As one teacher commented:

I see smaller groups of children now. Earlier I could see many of them playing together but now their circle of play friends is certainly smaller. This is definitely unusual.

Respondents were asked if they noticed any change in children's behaviour regarding expressing their emotions. The responses were quite mixed. For example, most parents noted that their child gets irritated easily and is quite vocal about his/her frustration compared to

before. But some parents noted that their child seems less interested in things and shows less emotion.

I told my son that Sony is going to launch PS5 and I'll get it for him as soon as it comes out. I was shocked to notice that he wasn't much excited. Otherwise, he would be screaming with joy for like 3 days. Probably because he had no friends to play with due to lockdown.

Most of the respondents suggested that whilst children are expressing negative emotions such as anger and frustration more frequently, they are not as expressive as before for positive emotions such as joy, excitement. One of the things that some respondents indicated was that this could be because children had no non-family members to share their positive feelings with.

When the respondents were asked about whether the children exhibited disrupted daily routines, most parents (88%) responded affirmatively. They suggested that the eating and sleeping habits of their children have been affected negatively with children eating more junk and sleeping at unusual times. Some parents suggested that their children are either not eating for a long time or binge eating at other times. Most parents agreed that covid-19 confinement has negatively affected their children's sleeping and eating habit. But the parents also suggested that it was not all children's fault because they did not impose strict restrictions on children.

I felt sorry for my children, sitting the whole day at home, doing nothing. To be honest I did not stop them from eating outside food. You cannot take everything from them.

I allowed my children to stay awake till late and watch TV. They used to sleep in the daytime. But then at east this passed their time. They wouldn't have anything to do in the daytime.

The remarks indicated that while the regular life routines of children were disrupted, part of it could be because parents did not enforce strict routines and discipline on them. Most teachers agreed that the screen time for kids increased significantly during the lockdown with some parents reporting that their children were using TV, laptop, phone or iPad for up to 14 hours a day. As one parent noted

During the lockdown, the iPad was everything for my daughter. She took classes on that and watched videos when not studying. She always had it with her.

Without doubt. My child used to be very playful and active. Now he sits mostly and watches cartoons on TV.

53% of the parents suggested that the main difference is in the kinds of games children prefer to play. As one of the parents noted:

My son prefers to play video games more than badminton which was always his favourite game. Even his friends from the neighbourhood are more busy playing video games.

Increased screen time for children had a negative impact on their interaction with other individuals. Many parents noted that their children are now used to using their phone or iPad all the time, even whilst having dinner.

My son is always on his phone. Even when are having dinner, he is watching some video or something. It's like others don't exist around him. He gets angry if I tell him to put down his phone.

I have never seen my son so quiet. He used to talk to me all the time about school, friends, games and stuff. Now he is silent most of the time.

Most of the parents reported that their child interacts less with family members. This could be a result of boredom as one of the parents commented:

Children are bored at home. I understand if you spend the whole day at home, you get bored and frustrated and then you don't want to talk a lot.

One teacher commented:

Normally you talk if you want to share something. If the child is spending the whole day at home with the same family members, he is unlikely to have anything new to share or ask.

Thus, according to the respondents, children are sharing less information and this is also affecting their level of interaction with other individuals.

Respondents (55% parents, 67% teachers) also reported a low level of tolerance and increased mood swings among children. According to the respondents, the children easily get irritated and

respond in ways not usual for them such as shouting, crying or expressing their anger verbally or physically. As one of the parents commented:

I understand that some of the tantrums could be age-related because he is growing up. But he was very well behaved till before the lockdown. And we have a very good and pleasant atmosphere at home, nothing like what will stress him. I am sure this is something to do with him getting mentally exhausted and frustrated.

Teachers also suggested that students have become more expressive of their negative emotions such as anger or frustration as compared to before.

Discussion

Children need mental stimulation as their brain is still in the early stages of development. Such mental stimulation can come through their interaction with people, objects and other environmental factors. When they are not interacting with people and objects like they should, then this missing mental stimulation can lead to other issues such as anxiety, frustration, anger etc.

This research finds that the extended lockdown imposed by covid has had a marked and noticeable impact on children's behaviour. One of the most noticeable changes reported by parents is the extensive use of handheld digital devices. According to this research, there are primarily two reasons why this happened; firstly, children were using these devices as a channel to study and consequently got used to using them for other purposes too such as playing and learning. Secondly, with few individuals to interact with and fewer ways to experience mental stimulation, children learnt to seek mental stimulation through these devices. The outcome is that children are increasingly using these devices to interact with their friends and to play. This has resulted in little physical activity, a sedentary lifestyle, increased screen time and little face to face interaction. What is alarming in all this is that the gradual decline in children's interest in face to face interaction could, over time, impede their ability to socialise except for in digital space. Such a lack of interaction could affect their ability to form relationships and build social connections.

Playing is one of the key modes in which children interact, socialise and form relationships. With little playing activity occurring children could lose their ability to form relationships with other children. This research finds, that some teachers noticed reduced play behaviour among children as they returned after lockdown. However, this was not generalised as some parents and teachers reported that children were very excited to go back to school. In this respect, the reduced play behaviour could be because children were feeling unfamiliar with the environment and the people due to long absence from school. However, if the reduction in playful behaviour is sustained it could be signalling some deeper behavioural issues for the children.

Other concerning signs of behavioural issues were disturbed sleeping and eating patterns. These are, according to past studies, signs of underlying stress or anxiety. Children developing such behaviour could indicate their increased stress or anxiety levels. This was also evident in response to the questions regarding the expression of negative behaviour such as anger or frustration. Parents reporting frequent outbursts of anger and lack of interest in taking or interacting with family members shows that covid confinement has led to increased stress or anxiety levels among some children. Studies also indicate that stress and anxiety could severely hamper an individual's ability to socialise.

Parents and teachers also reported that children have become less talkative and active as compared to before the lockdown. This could be explained by a lack of interaction with individuals which may have affected their ability to share information. While children interact with digital devices to learn the interaction with digital devices is largely one-sided with information being conveyed for the device to the user. The declining ability to share information may eventually hamper children's ability to socialise as their communication skills may get affected. This may also affect their confidence level which may further affect their socialisation skills.

This research noted that covid-19 confinement has had a significant impact on the socialisation skills of Saudi children. According to Jean Piaget's theory of cognitive development, children learn actively through play. Through

their interaction with the outside world, they construct their own beliefs, knowledge and behaviour. Due to the confinement, they have been deprived of this valuable connection with the outside world. It is, therefore, obvious that such confinement will have an impact on their behavioural development.

Conclusion

Extended confinement due to covid-19 related restrictions has significantly affected the socio-emotional well being of individuals around the world. Such confinement has particularly affected psychologically vulnerable individuals such as children. Children's inability to carry out routine tasks live a usual life combined with their inability to make sense of the restrictions imposed on their movement has significantly affected their mental well being.

Both teachers and parents of Saudi children aged 4-10 reported that they have noticed marked and unusual changes in the socialisation behaviour of children during and after covid-19 lockdown. Parents reported that less active and playful as well as less talkative after the covid lockdown. These views were supported by the teachers and they added that the students seem to ask fewer questions and are less curious than before. These observations indicate that children are exhibiting reduced interest in interacting with other people.

One of the primary causes for this, as highlighted by both parents and teachers, is the increased usage of mobile phones and tablets. Initially used as devices to deliver classroom lessons digitally, these devices have filled a significant void in children's lives. Children are using these devices for many purposes such as learning, playing, socialising, killing boredom etc. and as a result, their dependency on these devices is ever rising. Most parents agreed that their child is spending a lot of time using such devices and getting the children off these devices has proved difficult. As a result, traditional interactive activities such as outdoor sports have experienced a decline. In addition, the frequent expressions of negative emotions such as anxiety, fear, anger etc. also indicate that the prolonged confinement has had a negative impact on the psychology of the children.

This research, therefore, concludes that prolonged home confinement under covid-19 lockdown has had a significant impact on the socialisation behaviour of children. However, it is yet to be tested whether these effects are temporary. Furthermore, the role of mediating factors such as family size, socio-economic status of family, demographics etc. on how covid-19 confinement affected socialisation behaviour of children needs to be studied further.

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