Social Media Usage in Supporting Children with Cognitive Disabilities and Their Caregivers from Saudi Arabia: A Qualitative Analysis

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Abstract— **This study investigates the use of social media in supporting and empowering Saudi caregivers of children with cognitive disabilities. Through interviews with 13 caregivers, we examined their motivations and concerns around using social media in relation to their children or students' conditions. We also investigated the role of social media during the COVID-19 pandemic. We found that caregivers used social media with caution to seek information and emotional support, to spread awareness, and to communicate and build communities. Our findings also suggest that caregivers face a great deal of challenges in security and privacy, social stigma and negative discussions, misinformation, as well as lack of resources. We propose recommendations to the government, specialists, and parents that could lead to more effective use of social media to support children with cognitive disabilities and their caregivers in Saudi Arabia.**

Keywords-Social Media; Cognitive Disabilities; Children; Saudi Arabia; Accessibility.

I. INTRODUCTION

Caregivers across the world face challenges when raising a child with a disability. Therefore, they are constantly in need of information and social support to navigate through these challenges [1]. Social media has become a desirable means for spreading awareness, advocating for rights, establishing communities, acquiring information, and much more [2]-[4]. Numerous studies have confirmed the substantial value of social support and community belonging for individuals with disabilities and their caregivers. However, existing literature mainly focuses on Western users. In fact, public perceptions around disabilities differ across cultures [5]. Saudi caregivers, in particular, face unique challenges which might not exist in the Western context due to differences in social and cultural customs and values [6].

Saudi users have shown an increasing interest in using social media in the past decade. Previous studies emphasized its significant role in empowering members of Saudi society. These empowerment opportunities cover many aspects of their lives, ranging from establishing new forms of cross-gender communications [7] and possibly examining potential spouses [8] to facilitating interaction skills among adult users with autism [9]. Social media has helped women, specifically, in their integration into entrepreneurship [10], their participation in political activities and rights campaigns [11], as well as facilitating their inclusion in research and humanitarian studies [12]. However, to date, there is no research that investigated how social media was used to support children with cognitive disabilities and their caregivers from Saudi Arabia. We, therefore, conducted a study of online interviews as our initial effort to fill in this gap. Knowledge in this area can provide insights for educators and social workers to improve their services and support for families with children with cognitive disabilities. It can also help designers and developers of social media platforms implement features that accommodate the special needs of this population. Finally, government and non-profit organizations may benefit from this body of knowledge when developing policies and practices related to children with cognitive disabilities.

The structure of the paper is as follows: Section II presents an overview of the related work; Section III describes the methodology we used to conduct this research; Section IV presents the findings in four main themes; Section V discusses the results, their implications, and the limitations of our study; Section VI introduces our conclusions and further work.

II. RELATED WORK

Researchers have explored the value of social media in promoting public awareness around disability, as well as in building relationships and establishing communities. A recent work by Auxier et al. [13] found that Twitter is an effective means for establishing political action and awareness campaigns. Similarly, Li and Brady indicated that social media platforms can be effective tools for users, especially disability rights activists and people with disabilities, to promote public awareness, address accessibly issues, and encourage taking corrective actions [14]. In regard to building communities, Hashemy studied the use of social media platforms among 17 Canadian high school students with Autism Spectrum Disorder (ASD) to find that social media platforms, particularly Facebook, are widely used to share information and connect with others [15].

An individual's disability does not only affect them, but also affects their caregivers. As many studies noted, parents of children with disabilities are in a desperate need for information and social support. Kirby et al. found that parents of children with developmental disorders have the majority of postings on an online message board [16]. Their analysis of the posts identified multiple themes, including assistance seeking and experience sharing. Several studies investigated the role of social media in supporting caregivers of children with disabilities [2][3]. For example, Ammari et al. conducted research on parents of children with special needs in the

United States and found that they relied mainly on Facebook and Yahoo groups for acquiring information and obtaining social support [3]. Furthermore, their study indicated that their participants experienced more freedom and less judgment online compared to real world scenarios. These studies only involved Western users; more research is needed to explore how users from substantially different cultures, such as the Saudis, interact with such technologies. Studies particularly addressing disability-related matters in Saudi Arabia are very scarce.

III. METHODS

We conducted in-depth semi-structured interviews, following the procedures elaborated by Lazar et al. [17]. The interview questions were grouped into five main categories: (1) demographics and background, (2) general use of social media applications, (3) social media use related to children with cognitive disabilities, (4) government support, (5) the role of social media during the COVID-19 pandemic.

A. Interview Procedure

Thirteen participants were interviewed for the study. Participants were recruited through the 'snowball' technique recommended for highly conservative countries, such as Saudi Arabia [8][12][18]. Among the 13 participants, 12 were female. Five were specialists working with children with cognitive disabilities and their families, six were parents of children with cognitive disabilities, and two were siblings. The ages of the interviewees ranged from 19 to 44 years; eight participants had an undergraduate degree, while four had graduate degrees and one had a high school diploma. The conditions of the children that the participants cared for included ASD, Attention Deficit Hyperactivity Disorder (ADHD), Down syndrome, severe cognitive disabilities (unspecified), dyslexia, Cerebral Palsy, learning disabilities (unspecified), and brain atrophy. Interviews were conducted online through social media applications, such as Snapchat, WhatsApp, and Skype, by using voice call and/or instant messages. Interviews lasted between 40 and 120 minutes. The participants were given the freedom to choose the language of the interview. Two interviews were conducted in English while 11 interviews were conducted in Arabic (the native language of the participants as well as the first author).

B. Data analysis

In preparation for the analysis, the first author carefully transcribed and translated the interviews into English. We conducted thematic analysis following the approach proposed by Braun and Clarke [19]. The interview transcripts were coded in NVivo12 [20] using an inductive approach, which is suitable for areas of research, such as ours, that have not been thoroughly investigated.

In the first phase of analysis, the first author open-coded the transcripts and organized the codes into themes. Then, the second author reviewed the codes and themes and discussed with the first author all cases of disagreement until the disagreements were resolved. At last, the two authors worked together to finalize the main themes and sub-themes.

IV. RESULTS

We present our findings in four main themes: motivations, difficulties and challenges, opportunities for enhancements (desires), and social media use during the pandemic. The main themes and their subthemes are illustrated in Figure 1.
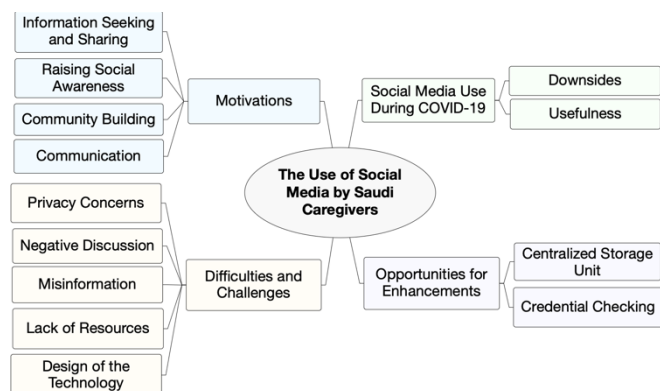

Figure 1. Thematic map, showing four main themes and their sub-themes.

A. Motivations

Participants used social media for four reasons: seeking and sharing information, raising social awareness, expanding communication, and building communities.

1) Information Seeking and Sharing

Twelve participants reported that they used social media to acquire or share general knowledge and resources about their child's disability. Family members increased their use of social media in relation to their child's condition after their initial diagnosis, while specialists used it more intensively after joining the field of special education. For example, four parents shared their experiences of how social media helped them in gaining knowledge regarding their children's conditions. P4, who has four children, the youngest with autism, expressed how unaware she was about autism before her child's diagnosis and that she sought information on YouTube to educate herself: *"Once I knew about my son's condition, I opened the YouTube immediately to get information about his disability, how to look after him, and how to enhance his case."* While P4 chose to surf YouTube for educational videos, P11 chose to follow some accounts on Twitter: *"I added several accounts that my child's specialist recommended me to follow right after she diagnosed him with ADHD and Dyslexia."* In this excerpt, it is promising to see healthcare providers encouraging parents to educate themselves and directing them to reliable accounts on social media. This is particularly important for parents who believe that their healthcare provider is the only source of information: *"I only communicate with specialists who follow my son's condition in the hospital."* (P13)

Some participants were approached by other caregivers of children with cognitive disabilities in an attempt to learn more about their own child's condition and its symptoms: *"The question I usually receive is how I knew my son is autistic."* (P10). P7 shared that searching the internet, Facebook and forums in particular, helped her to self-diagnose her sister and

to find available governmental services: *"I learned there are cases called learning difficulties, which is what my sister was suffering from, and then I knew that there was a governmental establishment which tested her and sent her to the appropriate school."* Additionally, all 5 specialists indicated that social media is a great avenue to *"connect with specialists who have a great deal of experience in [the] field." (P1)*

Interestingly, out of seven family members who used the platforms for the acquisition and dissemination of information, only three individuals shared information publicly. Out of these individuals, two are current graduate students living in the United States where their children received their diagnoses. This reflects a reservation in public sharing, which may be caused by fear of public criticism, lack of awareness, or privacy concerns. P11 commented on such a common practice: *"I don't share anything in public [...], but I give advice privately to anyone whom I know have children with the same condition."*

2) Raising Social Awareness

The wide use of social media as a means of spreading social awareness has been acknowledged in many Western studies. In this study, only five out of 13 participants used social media to spread public awareness. Still, we found promising signs of using social media for this purpose among Saudi caregivers. Three participants used it to advocate for their children/students as well as to promote and defend their rights. Twitter, according to our participants, is the most used and suitable platform for advocacy as they exploit some of its known features to accelerate the spread of their message. These features include the use of "hashtagging" and retweeting. P3 shared her experience in sharing a hashtag that was directed to the government to change a regulation related to registering children with disabilities in daycare centers:

"The Ministry of Labor changed the criteria of beneficiaries of the daycare services so that more than half of the children were excluded from the service. Families and specialists released a hashtag [#TurnningOff_admission_ اﻳﻘﺎف_اﺷﻌﺎر_ﻗﺑول_ذوي_اﻻﻋﺎﻗﻪ#] childrenWithDisabilities] calling for returning to the old criteria. We tweeted and retweeted until the decision was made by the custodian of the two holy mosques, King Salman, to restore the old regulations."

While P3 has had a positive experience, P8, the father of an autistic daughter, feels "*helpless*" in that technology had not supported him in communicating his voice due to the lack of public engagement. He stated: *"We need more awareness and cooperation of the competent authorities to spread awareness. I post hashtags on Twitter, but unfortunately, they are usually deleted after two or three hours because they lack the participation of tweeters."*

In the same token, P3 wished she "*had a louder voice*" through having a great number of followers, so that her *"posts were more valuable and influential in terms of media awareness and true implementation on the ground."*

3) Communication

Participants discussed the role of social media in supporting two-way communications. Twelve participants used social media to get connected with professionals or parents who had children with similar conditions. The purpose of communicating was mostly about providing and obtaining social support, specifically informational support. All five specialists stated that they use WhatsApp to communicate with parents. Some specialists used social media to continuously monitor children's progress beyond their daycare center: *"I use social media to check on the children's progress in training and learning needed skills." (P2)*

Participants reported that they mainly communicated through private social media communities, such as in WhatsApp groups, or through private one-to-one communication. P1 stated that she shared information and communicated with her collogues through a WhatsApp group, while communicates individually with the parents of her students. She said: *"I do not share any information outside the scope of my colleagues' WhatsApp group [...]and I send [information] to each mother separately."*

Moreover, we found that the nature of the relationship between two entities, whether they have a personal or non-personal relationship, had a substantial role in determining the platform used for communication. For instance, WhatsApp is preferred for interpersonal communications, whereas Twitter is a favorite for impersonal communications. We observed that platform preference was based on various factors, including security as well as the supported interaction features within each platform. For example, P2 expressed that she felt secure using WhatsApp: *"WhatsApp is linked with phone numbers of the users; it is more reliable."*

4) Community Building

All specialists were part of online groups that brought them together in professional settings to share general advice and resources. However, only three out of eight family members belonged to online groups. P4 felt confused and lost after her son was diagnosed with autism, and she sought emotional and informational support from other parents online:

"I started to look for people who have a child with the same condition as my son's. I was asking about how to deal with him and improve his skills. I was confused and shocked ...."

While three parents shared their positive experiences with online gatherings, five participants stated that they were not part of any online groups.

B. Difficulties and Challenges

Saudi caregivers face barriers that hinder them from fully exploiting the potentials of social media. Five major barriers identified in the interviews include: privacy concerns, negative discussion, misinformation, lack of resources, and design of technology.

1) Privacy concerns

Ten participants expressed worries regarding their privacy when using social media. P9 believed that the degree of security and privacy varied across platforms and that she trusted Twitter more than other platforms: *"Twitter is excellent in security and privacy, where in Telegram, as an example, fears exist from hacking and suspicious links."*

Regardless of her own view, P7's family did not approve of her sharing information about her sister's condition online because they did not want to reveal her case to others. She

expressed: *"My family prefer not to talk about my sister's condition in front of anyone."* Her family also disallowed her sister from using certain applications on her smart phone for fear of violating her privacy and sharing her private information with strangers: *"They try to keep my sister away from using Snapchat, Facebook, or Twitter because she can be easily contacted by strangers and fake accounts".*

Similarly, P3 believed that *"as everyone can use anything on social media, our intellectual property is vulnerable to theft",* and referred to her experience by saying: *"I've shared a number of self-designed posters with my students; then, one day I was surfing Instagram [...] and was shocked to see my work being displayed for sale in one of the commercial accounts on Instagram."*

Furthermore, the response from six participants revealed an interesting contradiction where they stated that they were not concerned about their privacy; Yet, they did not share any information about themselves or about the children they cared for on social media.

> *"I am not concerned, if someone posts something, he knows it can be circulated a lot on social media, so each user is responsible and bears the consequences of his actions. For me, I am very cautious and do not share things I do not wish to spread." (P1)*

It is clear that there was great concern among parents about sharing basic information about their children, such as their disability treatments and training updates with other parents. Three out of five specialists stated that they communicated with their students' mothers individually through WhatsApp as there was no group that brought them together. *"I do not guarantee that each mother is okay with me sharing information related to her child's case. I do not have a group for all the mothers together since some of them refused the idea." (P1)*

2) Negative discussion and comments

Sharing negative experiences may be seen by some as a way to relieve personal stress, to find emotional support, or to show solidarity with other caregivers. However, most participants expressed their displeasure at sharing such experiences. P1 explained her reason for disapproving of such posts: *"In Snapchat, a mother of an autistic son always shares about her son's constant crying; sharing such experiences negatively affects other parents who have children with Autism, [...] other mothers might lose hope that their children will improve over time."*

While most participants were against posting any negative posts, P11, on the other hand, believed it could open the door for discussion and criticism, which might help in raising public awareness: *"I think that they are published to be criticized and to spread awareness."*

P3 took a middle place between the two opinions, where she thought that someone should not post bad behaviors about a specific child, but talk about these behaviors scientifically for the purpose of spreading the knowledge needed.

Furthermore, being concerned about social stigma negatively affected the caregivers' engagement level. Some became passive users, where they only read and browsed information. For instance, P4 chose YouTube to search for answers instead of asking someone she personally knew as she

was afraid of public judgment: *"I feel embarrassed when I ask questions on WhatsApp. Also, because I do not want anyone to look at me or at my son with pity or to diminish his value."*

While P7 believed social media could be a great avenue for sharing and raising public awareness, she stopped sharing or asking public questions about her sister's condition out of respect for her parents' desire because they were afraid that by sharing her condition, she might get judged or bullied: *"they are afraid talking about her in social media may let people bully her and call her names or treat her differently."*

Another reason behind refrainment of sharing was the fear of being blamed. P4 stated *"blaming them[parents] as they are the reason of their child's disability"* as the most negative attitude that bothered her in social media discussions. Similarly, P10 shared that people on social media always criticized and blamed her for the way she was raising her son: *"My son is Autistic. I will get attacked, people will tell me that I did not hug him enough and even I am spoiling him too much [..] it used to put me in tears."*

In addition to the challenges they already face as caregivers of children with disabilities, the fear of online judgment and exposure to negative comments adds an extra layer of complexity to fully adopting social media platforms.

3) Misinformation

The caregivers reported that seeking credible information could be a challenge. Some specialists showed their resentment about spreading false statements that might mislead parents: *"They call autism "disease," and this thing is wrong because it is a disorder and has no cure!" (P1).* In the same token, P7 questioned the credibility of social media content and referred to her experience on Instagram about an advertisement announced as an educational event for families of children with disabilities:

> *"According to the post, if the family attended, they would be provided with information about the children's conditions and methods of treatment; so, I, my sister, and my brother went to find out that the program was all about distributing cake and brochures. It was just an advertisement which is often found on this platform."*

Misinformation about health treatments can actually put children with disabilities in danger. Therefore, concerns around using generalized treatment plans or fake medications were a major theme in the specialists' responses. One participant shared, in pain, one of her student's experiences:

> *"I have a case of a child who has paralysis. His mother travelled to meet a traditional healer after she had seen his ads and clips on social media. The medication was in the form of burning her son's skin [a form of moxibustion]. The mother said I paid him a lot of money. The worst part is my son is still not able to walk." (P6)*

Some participants also expressed worry about the credibility of social media accounts. For example, some questioned the credibility of the qualifications presented in a user's profile. P1 wondered: *"[how can someone] identify themselves in their bio as specialists of autism, learning difficulties, delayed speech, etc. This is incorrect! No one can be a specialist in all tracks."* Therefore, participants wished that the identities of users, especially those who identify

themselves as specialists and health care providers, could be verified.

4) Lack of resources

The majority of our participants believed that there was scarcity in the available resources to support them and their children. In addition to the general lack of resources related to cognitive disabilities, two problems are especially pressing, namely the scarcity of related information in Arabic and online communities.

To deal with the shortage of educational resources, especially in Arabic, P12 had to search for information in English because she *"did not find much information in Arabic [...] about dyslexia ..."* Besides the lack of Arabic language resources and Arabic content makers in the way that caregivers aspired to, most of the attention and effort was devoted to certain disabilities. All caregivers have expressed that there was *"more interest in Down syndrome"* compared to other conditions.

With regard to the scarcity of online communities, P11, when asked about why she was not a part of any online group, answered: *"simply because no one had created one and invited me to join."* In a similar way, P2 stated that she communicated with the mothers of her students separately since there was no group to bring them together.

The lack of resources and online engagement around topics related to children with cognitive disabilities affected the level of awareness within the society, which in turn discouraged some participants from publicly sharing their children's cases:

> *"Honestly, I feel people in our society don't know what dyslexia is. I remember one time I was talking to a friend about my daughter's condition. Later my friend came to me saying that she did not notice anything different about my daughter and that she looked "normal!" [..] I don't want to tell other people that my daughter is dyslexic. I'm afraid by doing so I will cause her harm [..]. I do not share any information about my child on social media. They see a person with dyslexia as a sick person."*

5) Design of the technology

Several parents complained about some of the inherent features within the nature of social media platforms, such as constant advertisements as well as abbreviating information especially when using Twitter. A mother shared her frustration with distracting ads hindering her ability to stay focused: *"social media platforms display ads in an irritating way. I wish if they were Ads-free; those ads distract my attention."* (P11)

Another element of social media design that some participants did not like is the abbreviation of information. The problem is particularly frustrating on Twitter due to the limit of 140 characters for each tweet. *"The abbreviation of the information is done in an aggressive way where it becomes too short, misleading, and unclear."* (P9)

C. Opportunities for Enhancements

While the overall experience of using social media among Saudi caregivers was positive, they expressed a desire for certain features or functions on social media that might boost their level of confidence and improve accessibility.

One proposed feature was a centralized storage unit where all the files related to a specific topic shared within a social media platform can be easily accessed: *"I hope there is a place to keep all the files scattered here and there in one center and classify them according to the conditions, functional goals, etc.; as a file bank which has a search engine."* (P1).

Having an account verified will encourage users to trust and engage in online interactions. As clarified by P9: *"I use twitter in relation to the child's care because it includes a number of authenticated accounts [...] their accounts verified with the Twitter blue checkmark."* Although social media platforms offer verification, only certain groups of people have the privilege to get their accounts verified, mostly celebrities and public figures. Participants expressed their desire in expanding social media credential checking, especially when the account owner claims to be a health care worker: *"Check credentials of people who claim they are who they are! For example, on Instagram, you will see actual doctors and fake ones, you will see actual speech therapists and people who took one course and called themselves speech therapists."* (P10)

D. Social Media Use During COVID-19

Participants shared the benefits as well as the downsides of using social media during the novel COVID-19 pandemic. Using social media during the COVID-19 pandemic has brought many benefits to the children and their caregivers, such as raising virus awareness, facilitating distance learning, and seeking social support. Participants stated that social media helped them "*learn about the disease and know how to protect [themselves and their] family. As, on social media, [they] can find the most important guidelines and instructions about [COVID -19]."* (P4).

Eight participants praised the role that social media played during the pandemic in facilitating the continuation of the learning process. Social media served as an alternative solution for sharing educational materials with parents, especially with the absence of a specialized educational platform: *"The center my daughter attends did not provide any online courses and was completely shut down. My daughter's teacher sent me a package of activities via WhatsApp to implement them with my daughter."* (P8)

Furthermore, some participants used social media for social support. P10 stated that she turned to a group of mothers on Facebook for support when she could not find her son's favorite snack due to the pandemic:

> *"I reached out to other special needs parents for emotional support, as my son has his daily breakfast meltdown because he doesn't see his favorite PJ sandwich. They all reached out to arrange for me to get some peanut butter and they sure did."*

Finding social support through social media not only for the parents, but also for the children themselves is valuable: *"my daughter misses her teacher [...] she always brings the phone [...] and repeats her name to call her. She calls her with an audio or video call through Snapchat."* (P8)

Regarding the downsides, specialists stated that, during this tough time, they were unable to maintain long and direct

communication with their students through social media. Thus, they fell short in adequately training them and evaluating their behavior goals and that they mainly relied on the children's mothers to train and evaluate their progress: *"I cannot evaluate children correctly; the training of children is not done fully and adequately by the mother due to limitations of understanding." (P9)* Another downside of social media during this time was the dissemination of misinformation around the novel Coronavirus. Two participants believed that *"social media is the reason for increasing the anxiety level among people by promoting rumors and spreading information about infected people and deaths which caused panic among people." (P5)*

V. DISCUSSION

The findings suggest that social media has the potential to empower Saudi caregivers and meet their informational and social needs. Caregivers increased their use of social media in regard to their child's condition after the initial diagnosis, which is consistent with parents from the United States [21]. Caregivers from Saudi Arabia tend to prefer private over public sharing of information due to privacy concerns. This private sharing is maintained within private social media groups or one-to-one communications. While they share general information within social media channels, they are hesitant to ask private questions regarding their child's condition due to fear of social stigma. Therefore, they prefer the passive format of communication to find answers, suggesting the importance of effective searching and filtering functions. This finding is consistent with an early study in which blind users felt hesitant to use their social networks as a Q&A avenue to their vision-related questions [22].

The subject of our study "cognitive disabilities among children" is considered relatively sensitive matter to discuss specifically in the Saudi Arabian context [23], where privacy is highly appreciated and tied with core cultural values, such as honor and modesty [18]. In our study, privacy concerns among participants goes beyond concerns for maintaining self-identity and honor to fear of public judgment and social stigma. In fact, several participants mentioned that they have hidden their children's disabilities from others, especially when the child is a girl and has an "*invisible disability"*, such as dyslexia. More research is needed to investigate caregivers' online interaction with cyberbullying and the content shared that is considered culturally inappropriate and could cause negative reactions. While fearing stigmatization also exists in Western context [24], families and children with disabilities experienced less judgment online [3][25].

The participants of this study revealed promising signs and positive examples of using social media, especially Twitter, to advocate on behalf of their children and influence policy changes. However, there is still lack of public engagement around topics related to disability. For decades, there were many misconceptions around disability and social exclusion practices within the kingdom; however, this has gradually started to change as a result of establishing a new governmental vision in 2016 entitled "Vision 2030" that emphasizes the rights of people with disabilities [26]. As a result, many initiatives to reform and promote the rights of persons with disabilities have taken place, such as the Authority for the Care of Persons with Disabilities and the *Mowaamah* program. All of these newly established programs and authorities have accounts on social media channels, especially on Twitter, to reach out to beneficiaries and raise public awareness. This is a promising effort that might encourage openness and information sharing. Still, substantial effort is needed to boost the public engagement level. Adopting more comprehensive mechanisms to spread awareness among society will be beneficial, such as funding seminars and conferences and other online and offline awareness activities. The government may also need to publicize their national efforts and online activities as many of our participants were unaware of them. We also recommend the allocation of funding to develop social media content in Arabic to address the lack of Arabic resources.

Many studies conducted in Western context confirmed the significant value of online communities in supporting their members [2][3][27]. However, only three out of eight family members in our study belonged to online groups. This may indicate low engagement in online communities among Saudi parents and family members of children with cognitive disabilities. Their limited engagement may be due to the scarcity of dedicated online communities and/or privacy concerns. To encourage community engagement, we recommend incorporating online communities as a part of educational centers' technological plans. We also urge social activists of parents, teachers, and health workers to initiate special interest communities. Additionally, the government could legislate data privacy policy to protect the rights of caregivers and their children on social media. Further research is needed to analyze other dimensions of caregivers' engagement behaviors: e.g., understanding barriers of actively participating in online communities and the nature of online discussion that stimulates their participation.

As an initial effort to explore this topic, the study has several limitations. Participants voluntarily reached out to us to be part of the study; therefore, the data sample is subject to self-selection bias. Those who volunteered may be more comfortable and open to share information about themselves and their children/students. As we mainly relied on social media channels for recruiting participants, caregivers who do not use social media were under-represented. Finally, our study oversampled female caregivers. Thus, our results might not be reflective of the whole population. In our future work, we aim to mitigate these limitations through using different methods and data sources (e.g., social network analysis) and triangulating results between the current study and future work.

VI. CONCLUSION AND FUTURE WORK

In this paper, we studied how Saudi caregivers of children with cognitive disabilities use social media to support their needs as well as their children's. We found that participants used social media to seek emotional and informational support, raise awareness, communicate with professionals and other parents, and build online communities. However, they encountered obstacles which hindered them from fully exploiting the advantages of social media, such as privacy

concerns, misinformation, and lack of resources. We introduced several recommendations to the government, specialists and parents to help mitigate challenges faced by caregivers of children with cognitive disabilities on social media and enhance their user experience and online engagement.

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