# Teleworking during COVID-19: experiences from Saudi Arabia

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Abstract: Teleworking has been adopted as a response to COVID-19 to reduce the spread of the infection, while continuing business operations. Saudi Arabia was among the countries that adopted stringent teleworking policies accompanying the first documented COVID-19 case. A descriptive, cross-sectional study was conducted to explore experiences of employees towards teleworking as a mandated work setting during COVID-19 in Saudi Arabia. We collected data using a questionnaire that was disseminated via different social media platforms during the partial curfew in the Country. The study sample included 471 participants. Most participants (78%) were satisfied with teleworking and reported higher job efficiency (44%) and work concentration (48%), and better work-life balance (56%) and stress management (55%). The positive experience was dependent on factors, such as gender, age, marital status, educational level, working sector and teleworking mode. Men, bachelor's degree holders, nonmarried, and employees working in health and education sectors as well as working flexible hours had less positive experience than their respective counterparts. The research contributes to literature about teleworking as a legitimate alternative work arrangement, while approaching teleworking as a means to reduce risks. As the first study conducted within Saudi Arabia, the study's findings have implications for policy, practice and research.

Key words: COVID-19, Experiences, Flexible work style, Saudi Arabia, Teleworking

# Introduction

Technological development has significantly changed the way most operations are conducted. One of the changes brought by this development is teleworking. The US Telework Enhancement Act of 2010 defines teleworking as an arrangement whereby employees perform their duties outside their office locations<sup>1)</sup>. The effectiveness of teleworking depends on the type of jobs performed. While teleworking can be easily adopted for job positions that

require writing, reading, research, and interacting with data, it is challenging for job positions that require specific equipment or necessitate in-person contact<sup>2)</sup>.

Interest in adopting teleworking has been driven by its benefits. Research shows that allowing employees to work remotely lowers overhead costs<sup>3</sup>), and reduces recruitment and training costs<sup>4</sup>). Primarily, allowing employees to work remotely lowers their turnover intentions, and thus employers spend less on hiring<sup>4</sup>). Furthermore, teleworking increases productivity given its flexibility. Employees feel that they can easily plan and perform their duties at any time of the day without being interrupted by commuting. Despite these benefits, teleworking is also associated with several drawbacks. One of the main challenges of

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teleworking is self-discipline and motivation. Research shows that teleworking can demotivate employees due to housework and comfort offered by the home environment<sup>5)</sup>. The effectiveness of teleworking is further undermined by a lack of face-to-face communication, and reduced interactions between members and thus hindering teamwork<sup>6)</sup>.

The COVID-19 pandemic has introduced new challenges to public health systems and global economies<sup>7)</sup>. Social and work lives have suddenly changed, with many countries enforcing lockdown and social distancing measures to reduce the spread of the infection<sup>8)</sup>. Moreover, governments and businesses have adopted teleworking to ensure continuity of business operations, while allowing for social and physical distancing<sup>9, 10)</sup>. Indeed, governments have further seen teleworking as a solution to mitigate financial and economic impacts caused by the pandemic<sup>9, 10)</sup>. Whether mandated or encouraged, partly or fully, countries have seen a great uptake of teleworking as a response to COVID-19. In the US, about 34% of surveyed employees in Brynjolfsson and colleagues' study have shifted to teleworking during COVID-19<sup>11</sup>). This is comparable to 40% teleworkers in Lithuania and over 37% in countries of the European Union (EU)<sup>12)</sup>. In Japan, where teleworking was not mandatory, the adoption of teleworking during COVID-19 was limited to 17% and was more prominent in urban cities<sup>13)</sup>. Thus, for the first time in modern history, workers around the world have been forced to work from home with many new technological challenges they may not have been prepared for nor desired.

The sudden and enforced nature of teleworking due to COVID-19 provides an extraordinary context which is significantly different from the usual teleworking. To continue 'business as usual', employees had to adapt quickly to non-conducive working spaces and unfamiliar digital platforms<sup>8)</sup>. Accordingly, the few studies examining teleworking during COVID-19 have documented mixed experiences that were either facilitated or hindered by demographic, social and environmental factors <sup>13–18</sup>). A common finding across these studies was a general satisfaction with teleworking and an ease of adaptation <sup>14, 17)</sup>. For example, Baert and colleagues examined employees' experiences with teleworking during COVID-19 in Belgium and how it has affected their views on teleworking and digital conferencing. They found that more than 80% of the surveyed employees were satisfied with teleworking and digital conferences. Moreover, teleworking had a positive effect on employees' social and professional lives in terms of increased efficiency and better work-life balance<sup>19)</sup>. At the same time, however, teleworking had potentially negative impacts on promotion opportunities and work relationships with colleagues and employers<sup>16, 17, 19)</sup>.

A survey study of 1,976 teleworkers during COVID-19 in Hong Kong found that the effectiveness of teleworking, measured by increased work efficiency and concentration, was positively related to social and family factors such as reduced stress, improved quality of life and better relationships with family members. Accordingly, parental and family responsibilities have challenged a positive teleworking experience for parents who reported less satisfaction with teleworking, increased family conflicts and difficulties in balancing work-life responsibilities 14, 15, 20). Indeed, during the country lockdown in France, 15% of the surveyed teleworkers reported deteriorated parentchildren relationships<sup>20)</sup>. Likewise, in Portugal, Travares and colleagues reported that for most of the study's participants, household chores, taking care of younger children and social networks distracted teleworking <sup>17</sup>). Despite such conflicts given teleworking due to COVID-19, women have reported more satisfaction with teleworking than men<sup>16)</sup>.

The European Foundation for the Improvement of Living and Working Conditions administered a large-scale survey to capture people's perceptions and experiences in terms of the impact of COVID-19 on work and life in the 27 states of EU. The findings resembled the negative experiences of teleworkers as those who exclusively teleworked reported less job quality compared to those who worked in offices. Specifically, teleworkers reported isolation, high work demands, and felt their jobs were not useful<sup>15</sup>). Indeed, the sudden shift to teleworking left some teleworkers faced with the mandate to work from home without proper equipment or resources<sup>13, 15, 17, 18</sup>). For instance, the lack of availability and reliability of ICT services, equipment and infrastructure impeded teleworking during the pandemic in Japan<sup>13</sup>).

Given the scarce literature on experiences of teleworkers during pandemics in general and COVID-19, specifically, the current study reports on lived experiences of teleworkers in the Kingdom of Saudi Arabia (KSA). The study's aim was to explore and describe the effect of teleworking as experienced by teleworkers in KSA during the COVID-19 pandemic. To the best of our knowledge, no previous studies have examined teleworking within the context of KSA. By taking advantage of this rare and unexpected situation, the findings of this study contribute to the current, yet limited interest in documenting the lived

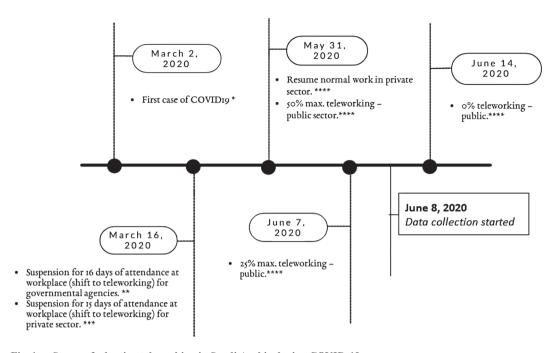


Fig. 1. Stages of adopting teleworking in Saudi Arabia during COVID-19.

\*(Saudi Press Agency, 2020a), \*\*(Saudi Press Agency, 2020b), \*\*\*(Saudi Press Agency, 2020b), \*\*\*(MHRSD, 2020).

experiences of teleworking during COVID-19<sup>13-18</sup>). It further resembles primary and first results of teleworking in the context of KSA, a country where the level of adoption of teleworking remains minimal and its expansion to nontargeted groups are yet to be operationalized. Thus, the study extends the extant literature on teleworking by considering different contexts and by reporting experiences of first-time teleworkers, which ultimately, contributes to documenting experiences in early implementation of teleworking. Furthermore, the operationalization of teleworking in KSA reflected variation in several teleworking aspects such as teleworking modes, digital tools used in teleworking, as well as employment sectors and occupations that experienced teleworking. Accordingly, the study would have relevance to the international context by reporting experiences of teleworking with varied aspects.

KSA was among the first and few countries that imposed stringent measures as a result of the COVID-19 pandemic. Indeed, KSA was the only country in the region that imposed a 24 h curfew. Furthermore, stringent measures included the suspension of religious practices and recreational events, closure of retail stores, and the sudden shift to teleworking. While teleworking has been the 'exception' model of working in KSA, the majority of employees were forced to telework right after the first confirmed COV-ID-19 case in the Country, in March 2, 2020<sup>21)</sup>. Teleworking was initiated as a mandatory precautionary measure

due to COVID-19 for all governmental sector entities (with few exceptions). With disparities in its application between public and private sectors, teleworking was instated in different and recurring stages reflecting the status of the widespread of COVID-19, as illustrated in Fig. 1.

Accordingly, the Ministry of Human Resources and Social Development (MHRSD), released general guidelines for teleworking due to COVID-19. The guidelines required employees to specify working hours and teleworking models; whether it is flexible or for specific time and to provide a platform that allows for monitoring and performance management. Also, employees were required to abide by cyber security and communication policies and procedure in terms of information confidentiality<sup>22</sup>.

# **Subjects and Methods**

A descriptive, cross-sectional study was used to explore the experiences of employees towards teleworking during COVID-19 pandemic. Convenience snowball sampling method was utilized across main geographical regions in KSA.

An online questionnaire was created using QuestionPro and disseminated via different social media platforms (Twitter, Instagram, WhatsApp, LinkedIn and Snapchat). The confidentiality of participants' personal information and responses was guaranteed, and informed consent was

required before participation in the study. The data collection started during the partial curfew in the Country; on the 8th of June 2020 and lasted for two weeks. The study included all residents of KSA who experienced teleworking during the pandemic and fully completed the questionnaire. Respondents were allowed to respond only once to the questionnaire. The study was approved by the Institutional Review Board of Imam Abdulrahman Bin Faisal University (IRB 2020-03-343).

#### Instrument

Teleworking experiences were explored by collecting data using a questionnaire<sup>23)</sup>. The questionnaire consists of three sections: sociodemographic, teleworking experiences (13 items), and perceptions towards teleworking (6 items). The first section included question about participants' gender, age, marital status, education level, nationality, residency area, employment sector and occupation, and teleworking-related factors. Responses in teleworking experiences and perceptions were measured using a five-points Likert scale, with the highest score (5) equivalent to totally agree and lowest score (1) equivalent to totally disagree.

Face and content validity were conducted to ensure the accuracy of the translated questionnaire. Through backward translation, the original questionnaire was translated to Arabic and then translated again to English, which was then compared to the original questionnaire.

#### Statistical analysis

Statistical analysis was done using IBM Statistical Package for Social Sciences (SPSS) version 21. The reliability of the questionnaire was measured using Cronbach alpha to check whether the questionnaire's 19 items measure the same construct. To effectively interpret the data, the researchers used frequency and proportion to describe the sociodemographic characteristics of respondents. Respondents' answers reflecting their experiences were presented using stacked bar charts; to allow readers to view and compare the whole range of responses, in proportion to one another. Additionally, respondents' experiences were analyzed based on different teleworking related variables.

# Results

#### Respondents' demographics

Table 1 describes the respondents' demographics and given the different modes of teleworking. The study respondents included 471 teleworkers in which 60% were

females and 40% were males. An overwhelming majority of the respondents were Saudi (94%). Among the respondents, 62% were from the Eastern Region, followed by the Central Region with 29%. Most of the respondents were between 31 and 40 years old (43%). Married respondents constituted 69% of the respondents, while 25% were single. In terms of education level, most of the respondents had a bachelor's degree (62%), while 31% had a graduate degree.

Government and private employees were comparably represented among respondents with 51% government employees compared to 49% private employees. Almost 60% of employees worked from home with flexible working hours, while 28% worked from home during official working hours. The most utilized application for teleworking was email (31%) followed by telephone calls (24%). Zoom application was also one of the most used applications for meetings (15%) with a similar result for using employers' own platform (14%).

Teleworking experience in relation to various life and career aspects

Figure 2 shows respondents' experiences with teleworking in relation to various life and career aspects. The majority of respondents were satisfied with teleworking. In terms of employment sector, respondents working in private and governmental sectors reported similar experiences across the different career and life aspects (Table 2).

More than two-third of the respondents disagreed or totally disagreed with having more conflicts with their families. However, 14% of teleworkers with flexible hours agreed and strongly agreed that during teleworking they faced family conflicts (Table 3). Furthermore, 24% of teleworkers in health sector totally agreed or agreed with more conflicts with family members compared to only 11% and 12% of employees in higher and general education, respectively (Table 2). Regarding disturbance by a family member, women were more often disturbed by a family member (34%) compared to men (24%). Almost 40% of postgraduates reported experiencing disturbance by a family member, while only 23% of bachelor's degree holders reported the same issue.

Half of the participants reported less work-related stress and better burnout prevention due teleworking. However, among women 32% experienced more work-related stress compared to 25% among men. Among respondents working upon request, 62% and 57% reported less work-related stress and reduced chances of burnout, respectively. About 28% and 32% of working fixed hours and flexible hours

Table 1. Respondents' sociodemographic factors and mode of teleworking

	Mode of teleworking						
Sociodemographic factors N (%)	Teleworking during official working hours N=134	Teleworking with flexible working hours N=281	Teleworking only upon request N=56 n (%)				
	n (%)	n (%)					
Gender							
Male	54 (40)	115 (41)	21 (38)				
Female	80 (60)	166 (59)	35 (62)				
Age							
20–30 yr	39 (29)	43 (15)	15 (27)				
31–40 yr	62 (46)	119 (42)	21 (37)				
41–50 yr	17 (13)	81 (29)	15 (27)				
51–60 yr	15 (11)	36 (13)	5 (9)				
Above 60 yr	1(1)	2(1)	0				
Nationality							
Saudi	126 (94)	261 (93)	54 (96)				
Non-Saudi	8 (6)	20 (7)	2 (4)				
Residence area	(-)		( )				
Central region	30 (22.4)	96 (34)	12 (21)				
Eastern region	93 (69.4)	161 (57)	40 (71)				
Western region	10 (8)	18 (6)	1 (2)				
Northern region	1 (1)	2(1)	0				
Southern region	0	4(2)	3 (6)				
_	v	1 (2)	3 (0)				
Marital status	44 (22)	50 (21)	16 (20)				
Single	44 (33)	59 (21)	16 (29)				
Married	85 (63)	204 (73)	38 (67)				
Divorce	4 (3)	14 (5)	1 (2)				
Widowed	1 (1)	4 (1)	1 (2)				
Education level							
Below high school	1 (1)	1 (1)	1 (2)				
High school	5 (4)	21 (7)	2 (4)				
Bachelor's degree	92 (68)	160 (57)	42 (75)				
Post-graduate degree	36 (27)	99 (35)	11 (19)				
Employer							
Private	93 (69)	113 (40)	24 (43)				
Government	41 (31)	168 (60)	32 (57)				
Sector							
Engineering & science	13 (10)	14 (5)	1 (2)				
Health	15 (11)	38 (14)	6 (11)				
General education	8 (6)	57 (20)	20 (36)				
Higher education	21 (16)	68 (24)	7 (12)				
Business & management	13 (10)	17 (6)	5 (9)				
Information & communication technology	13 (10)	10 (3)	3 (5)				
Legal, social & cultural work	1(1)	11 (4)	1 (2)				
Banking & finance	7 (5)	13 (5)	2 (4)				
Sales	6 (4)	8 (3)	0				
Transportation	2 (2)	2(1)	0				
Others	35 (26)	43 (15)	11 (19)				

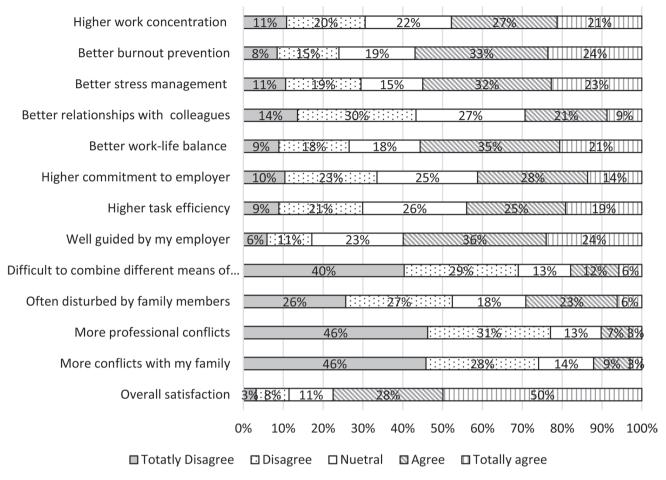


Fig. 2. Teleworking experience in relation to various life and career aspects.

Table 2. Teleworking experience given employment and occupation sectors for positive responses\*

	Employme	ent sector		Occupational sector**		
Teleworking experience	Government N=242	Private N=230	Health N=59	General education N=85	Higher education	
	n (%)	n (%)	n (%)	n (%)	n (%)	
Higher work concentration	109 (45)	117 (51)	24 (41)	44 (52)	38 (39)	
Better burnout prevention	135 (56)	134 (58)	31 (53)	57 (67)	42 (43)	
Better stress management	128 (53)	132 (57)	29 (49)	61 (72)	42 (43)	
Better relationships with colleagues	78 (32)	60 (26)	10 (17)	31 (36)	30 (31)	
Better work-life balance	126 (52)	136 (59)	26 (44)	47 (55)	49 (51)	
Higher commitment to employer	98 (40)	97 (42)	16 (27)	37 (44)	40 (41)	
Higher task efficiency	106 (44)	102 (44)	23 (39)	37 (44)	39 (40)	
Well guided by my employer	145(60)	138 (60)	26 (44)	60 (71)	58 (60)	
Difficult to combine different means of communication	46 (19)	38 (17)	12 (20)	24 (28)	22 (23)	
Often disturbed by family members	76 (31)	62 (27)	19 (32)	31 (36)	34 (35)	
More professional conflicts	20 (8)	28 (12)	10 (17)	3 (4)	10 (10)	
More conflicts with my family	29 (12)	29 (13)	14 (24)	9 (11)	12 (12)	
Overall satisfaction	187 (77)	179 (78)	42 (71)	70 (82)	71 (73)	

<sup>\*</sup>Total of respondents who responded with either "totally agree" or "agree" for each of the statements.

<sup>\*\*</sup> Occupation sector results for the top three sectors with the highest frequency.

Table 3. Teleworking experience given working hours per week and teleworking mode for positive responses\*

		Teleworkin	g hours/wk		Teleworking me		
Teleworking experience	<10 N=174 n (%)	10–25 N=118 n (%)	26–40 N=100 n (%)	>40 N=79 n (%)	During official working hours N=134 n (%)	Flexible working hours N=281 n (%)	Only upon request N=56 n (%)
Higher work concentration	83 (48)	54 (46)	53 (53)	35 (44)	74 (55)	125 (44)	26 (46)
Better burnout prevention	112 (64)	67 (57)	52 (52)	37 (45)	86(64)	150(53)	32 (57)
Better stress management	112 (64)	59 (50)	55 (55)	33 (42)	72 (54)	152 (54)	35 (63)
Better relationships with colleagues	59 (34)	26 (22)	34 (34)	19 (24)	41 (31)	88 (31)	9 (16)
Better work-life balance	95 (55)	60 (51)	59 (59)	48 (60)	98 (73)	134 (48)	30 (54)
Higher commitment to employer	75 (43)	46 (39)	42 (32)	31 (39)	53 (40)	116 (41)	25 (45)
Higher task efficiency	73 (42)	53 (45)	43 (43)	38 (48)	74 (55)	109 (39)	24 (43)
Well guided by my employer	103 (59)	80 (68)	58 (58)	41 (52)	81 (60)	169 (60)	32 (57)
Difficult to combine different means of communication	43 (25)	16 (13)	12 (12)	13 (16)	16 (12)	53 (19)	15 (27)
Often disturbed by family members	59 (33)	31 (26)	31 (31)	16 (20)	32 (24)	91 (32)	14 (25)
More professional conflicts	20 (11)	9 (7)	7 (7)	12 (15)	12 (9)	29 (10)	7 (13)
More conflicts with my family	18 (10)	15 (12)	11 (11)	13 (16)	10 (7)	40 (14)	7 (13)
Overall satisfaction	135 (77)	90 (76)	79 (79)	61 (77)	106 (79)	214 (76)	45 (80)

<sup>\*</sup>Total of respondents who responded with either "totally agree" or "agree" for each of the statements.

Table 4. Teleworking experience given marital status for positive responses\*

	Marital Status						
Teleworking experience	Single	Married	Divorced	Widow			
releworking experience	N=119	N=328	N=19	N=6			
	n (%)	n (%)	n (%)	n (%)			
Higher work concentration	54 (45)	159 (48)	10 (52)	3 (50)			
Better burnout prevention	62 (52)	194 (59)	12 (63)	1 (17)			
Better stress management	53 (45)	195 (59)	10 (53)	2 (33)			
Better relationships with colleagues	28 (24)	102 (31)	6 (67)	2 (33)			
Better work-life balance	65 (55)	182 (55)	10 (53)	5 (83)			
Higher commitment to employer	52 (44)	134 (41)	6 (32)	3 (50)			
Higher task efficiency	46 (39)	150 (46)	8 (42)	4 (67)			
Well guided by my employer	61 (51)	209 (64)	8 (42)	5 (83)			
Difficult to combine different means of communication	22 (19)	59 (18)	3 (16)	0 (0)			
Often disturbed by family members	28 (24)	105 (32)	5 (26)	0 (0)			
More professional conflicts	20 (17)	23 (7)	5 (26)	0 (0)			
More conflicts with my family	14 (12)	41 (16)	3 (16)	0 (0)			
Overall satisfaction	84 (71)	263 (80)	15 (79)	4 (67)			

<sup>\*</sup>Total of respondents who responded with either "totally agree" or "agree" for each of the statements.

disagreed and totally disagreed with less-work stress, respectively. Additionally, those spending less hours in teleworking (less than 10 h per week) reported better burnout prevention (64%) and stress management (64%) compared to those teleworking more than 10 h per week (Table 3).

Furthermore, 48% of participants experienced higher work concentration; this includes 50% of male respondents and 55% of respondents working fixed hours. Fur-

thermore, more than one-third of divorced, married and those working flexible hours experienced less work concentration (Tables 3 and 4). Only 18% of the respondents reported difficulties in combining different means of communication while teleworking. Indeed, 20% of employees using their work platform or Zoom reported totally agreed or agreed that they faced difficulties in combining different means of communication while teleworking (Table 5).

Table 5. Teleworking experience given used digital tools for positive responses\*

	Digital tool							
Teleworking experience	Phone n (%)	Email n (%)	Work platform n (%)	SKYPE n (%)	Zoom n (%)	MS Teams n (%)		
Higher work concentration	138 (48)	181 (48)	95 (55)	24 (55)	73 (40)	47 (41)		
Better burnout prevention	165 (58)	210 (56)	109 (63)	28 (65)	90 (49)	65 (56)		
Better stress management	158 (55)	198 (52)	108 (63)	24 (55)	88 (48)	54 (47)		
Better relationships with colleagues	85 (30)	107 (28)	54 (31)	14 (32)	54 (30)	32 (27)		
Better work-life balance	160 (56)	207 (55)	95 (55)	33 (76)	91 (50)	73 (63)		
Higher commitment to employer	125 (43)	154 (41)	66 (38)	19 (44)	78 (43)	43 (37)		
Higher task efficiency	117 (30)	162 (43)	77 (55)	25 (57)	77 (42)	50 (43)		
Well guided by my employer	171 (60)	217 (57)	107 (62)	19 (44)	109 (60)	64 (55)		
Difficult to combine different means of communication	46 (16)	62 (16)	35 (20)	2 (4)	36 (20)	17 (14)		
Often disturbed by family members	81 (28)	100 (26)	51 (29)	11 (24)	62 (34)	23 (20)		
More professional conflicts	27 (9)	36 (10)	20 (11)	3 (7)	21 (11)	12 (10)		
More conflicts with my family	31 (10)	43 (11)	22 (13)	4 (9)	28 (15)	14 (12)		
Overall satisfaction	218 (76)	291 (77)	138 (80)	39 (90)	138 (76)	86 (74)		

<sup>\*</sup>Total of respondents who responded with either "totally agree" or "agree" for each of the statements.

Forty-four percent of the respondents reported higher job efficiency. However, more than one-third of those working upon request and with flexible working hours disagreed and totally disagreed with better work efficiency (Table 3). Sixty percent of the respondents felt that they were well-guided by their employers. The majority of bachelor's degree holders (63%) and women (64%) reported well guidance by their employers. Furthermore, 40% of the respondents reported higher commitment to their employers and almost two-thirds reported fewer professional conflicts (77%).

In addition, more than half of the respondents (56%) felt that teleworking had a positive effect on their work-life balance. Sixty percent of bachelor's degree holders experienced better work-life balance compared to 46% of postgraduate degree holders. More than half of teleworkers in general and higher education sectors agreed or totally agreed with better work-life balance (Table 2). Similarly, 32% of teleworkers working flexible hours reported disagreement or total disagreement with better work-life balance (Table 3, Appendix Tables 1 and 2).

#### **Discussion**

The study documented employees' experiences with teleworking during the COVID-19 pandemic in KSA. Our findings report an overall positive experience with teleworking, as found in similar studies<sup>14–16</sup>. However, some differences in employees' experiences were documented given demographic, social and environmental factors.

The study's findings indicated that, in general, employees holding bachelor's degree were more satisfied with teleworking than those with postgraduate degrees. Bachelor's degree holders experienced fewer family and professional conflicts, better work-life balance and felt better supported by their employers than postgraduate degree holders. Such differences can be explained by age and, by extension, length of employment. Bachelor's degree holders are typically younger than postgraduate degree holders. A recent study conducted in Lithuania confirmed that older respondents emphasized negativities of teleworking<sup>16)</sup>. Previous research has also shown that younger employees are more comfortable with teleworking than older employees<sup>15, 16)</sup>. The underlying cause of this difference is generational differences in perceptions of autonomy and flexibility<sup>24, 25)</sup>. Younger employees expect more autonomy and flexibility in their work; two factors that have been extensively facilitated and supported by advances in communications and team-working technologies<sup>26–28)</sup>. Age differences also contribute to differences due to the length of employment. In essence, younger employees have had less time to become fully entrenched into systemized and inflexible work environments and they have expectations of increased flexibility, autonomy, and freedom at work<sup>29-31)</sup>. As such, while the implementation of teleworking due to COVID-19 has disrupted all workers, it has had a greater effect on those who were already accustomed to work routines than those who were yet to experience it.

Similar to previous research<sup>15, 19, 20)</sup>, married partici-

pants in our study showed some negative experience in teleworking during COVID-19 in terms of less work efficiency and concentration, weaker connection to their employers and colleagues and being disturbed by family members. Such negative experiences were rarely reported among nonmarried employees in the study. This difference can be explained by the nature of responsibilities at home for married employees and if they have children. According to Zhang and colleagues<sup>32)</sup>, people with children perceive teleworking more negatively than people without children. Particular to COVID-19, the shift to home schooling have introduced additional responsibilities to parents that have to manage several responsibilities while teleworking.

While both men and women in our study had a comparable experience in terms of overall satisfaction with teleworking, positive views towards teleworking were more expressed by women than men in terms of better support and guidance by their employers, stronger bond with their colleagues, and higher efficiency. In that matter, our findings confirm to a growing body of evidence that women experience a little negative impact of teleworking on potential work-family conflict and greater work performance than men<sup>16, 33)</sup>. An explanation could be found in traditional gender roles, which expect more responsibilities from women than men<sup>34)</sup>. While it could be difficult for women to coordinate between personal, family responsibilities and work-related responsibilities, teleworking can help in managing them.

Given that teleworking was imposed for both government and private institutions, employees in both sectors shared similar experiences. However, it was clear that across the different aspects of teleworking, teleworkers in health and education had a less positive experience than teleworkers in other sectors. A noticeable number of employees in health and education reported that working from home was disturbed by family members and thus teleworking did not contribute to a better work-life balance for them. They further disagreed with teleworking advantages in terms of work efficiency and concentration, better work-related stress management or less burnout prevention. Such finding can be discussed considering the pandemic's negative impacts on health and education sectors. To ensure continuity of patient care, hospitals have seen a rise in telemedicine during COVID-19<sup>35, 36)</sup>. Furthermore, the pandemic exacerbated occupational hazards beyond the front-liners to include healthcare workers exposed to work overload and stress, dealing with multiple mortalities as well as quarantine and fear of infection<sup>37)</sup>. For example,

Corruble<sup>35)</sup> reported that along with shifting to telepsychiatry given the mental health consequences accompanying the pandemic, lockdown and isolation, their services were extended to health workers requiring teleconsultation. Likewise, the sudden shift to online education, which was never actively employed prior to the pandemic, reflected the less positive experience of teleworkers in education. Such finding is in line with a recent study reporting the experiences of academic staff in a Saudi university regarding online education due to the pandemic. Almaghaslah and Alsayari found that while about half of the staff found the shift to teleworking to be smooth and flexible, they reported facing challenges in delivering instructions in terms of controlling students and engaging them<sup>38)</sup>.

Given the sudden enforced teleworking, the adoption of teleworking has seen variation across the different organizations. While some teleworkers had flexible working hours, others had to work for fixed hours and others were working upon request. Based on our study's findings, the different modes of teleworking reflected differences in the experiences of teleworkers. Specifically, teleworkers with flexible working hours had a less positive experience than teleworkers with fixed hours or upon request. An overwhelming majority of teleworkers experiencing more family conflict and disturbed work-life balance were employees working flexible hours. Furthermore, lower work concentration, burnout and work-related stress was more pronounced among employees working flexible hours than fixed hours and upon request. Such findings confirm previous arguments regarding the importance of structured teleworking hours and during official working hours to ensure concentration, maintain focus, and enable effective time management<sup>17, 37)</sup>. Indeed, flexible and unstructured teleworking disrupts work-life balance that is necessary for the sustainability of teleworking <sup>12, 15, 37)</sup>.

The experience that employees, employers and organizations have gained from teleworking due to COVID-19 would contribute to a greater acceptance of teleworking as a valid work setting. Indeed, facilitated by general positive experiences, teleworking is likely to extend post-pandemic and employers are likely to opt for more permanent remote working policies for their employees<sup>15, 39)</sup>. Thus, the enforced teleworking might be a step towards facilitating and accelerating the Saudi government's efforts in stating teleworking as a legitimate working setting for employers and employees. Teleworking was first introduced in the Saudi labor market as an initiative proposed by MHRSD to advocate and increase the participation of Saudi female and persons with disabilities in the labor market<sup>40)</sup>. Telework-

ing then was understood to provide working opportunities that overcome barriers such as geographical constraints and caregiving responsibilities. The large-scale improvised teleworking as a response to the COVID-19 pandemic provided an 'experiment' at national and organizational levels that extended the targeted groups of teleworking as identified by the government. Lessons learned from this experiment regarding feasibility, work organization and ICT infrastructure would be key in incorporating it in further policies and regulations. Thus, the results of the study would have implications for public policymakers and employers regarding the future of teleworking.

The overall experience of teleworkers has been generally positive. However, the documented differences in the experiences given marital status, gender, and educational level and among different sectors and modes of teleworking indicates that further investigation of how to account for such factors and address them in drafting policies and regulations to ensure positive, and sustainable experiences is necessary. The findings of this study also extend the current dialogue on identifying occupations that can adopt teleworking<sup>11, 39)</sup>. The results also highlighted the importance of the sector in terms of shaping the lived experiences teleworkers from different working sectors. Thus, it is important to approach teleworking as a context or occupation bounded model of working, rather than a universal one, to account for undesirable differences in experiences due to contextual and sectoral factors. Furthermore, worsen stress-related management and weakened relationships with colleagues and employers as reported in our study calls for structured and strategic efforts towards addressing implications of occupational and psychological health and behavioral risks associated with teleworking.

Considering our findings together with the aforementioned implications highlights a fruitful venue for future research. The study's exploratory nature would set base for future research examining teleworking in KSA. Further studies to examine the sustainability of the pandemic-induced changes in working conditions as well as how teleworking is operationalized and experienced in post-pandemic conditions would be necessary. Additionally, it is important to have comparative international studies to understand how teleworking was experienced as a response to a global pandemic. Moreover, it is essential to further examine sociodemographic and teleworking related factors to determine their impacts on employees' experiences of teleworking.

The present study is among few studies to document teleworking during COVID-19. However, the study is lim-

ited by the geographical context of KSA. The experiences of surveyed teleworkers remain shaped by the particularity of KSA and its respective labor force. Thus, the study's findings are context dependent, making it generalizable only to similar contexts. Additionally, the study's respondents were overrepresented by teleworkers in health and education sectors. Also, the age of the study's participants was representative of the Saudi labor force. By the end of the second quarter of 2020, the core working age was between 25 and 45 yr old representing 84% of the Saudi labor force. However, Saudis and females were overrepresented in the study's participants as they accounted for 51% and 15% of the Saudi labor force, respectively<sup>41</sup>. Finally, the method used in administering the questionnaire (through social media platforms) has introduced a selection bias.

#### Conclusion

The research documented experiences of teleworking during COVID-19 in KSA. Our findings reflect an overall positive experience of teleworking that was dependent on factors, such as gender, age, marital status, educational level, working sector and teleworking mode. The research contributes to the growing body of knowledge about the effectiveness of teleworking. As the first study conducted within the context of KSA, the study's findings have implications for policy, practice and research.

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#### **Conflict of Interest**

The researchers declare no conflict of interest

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# Appendix

Appendix Table 1. Teleworking experience in relation to various life and career aspects

Teleworking experience	Totally disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Totally agree (%)
Overall satisfaction	3	8	11	28	50
More conflicts with my family	46	28	14	9	3
More professional conflicts	46	31	13	7	3
Often disturbed by family members	26	27	18	23	6
Difficult to combine different means of communication	40	29	13	12	6
Well guided by my employer	6	11	23	36	24
Higher task efficiency	9	21	26	25	19
Higher commitment to employer	10	23	25	28	14
Better work-life balance	9	18	18	35	21
Better relationships with colleagues	14	30	27	21	9
Better stress management	11	19	15	32	23
Better burnout prevention	8	15	19	33	24
Higher work concentration	11	20	22	27	21

Appendix Table 2. Teleworking experience given occupation sectors for positive responses\*

				Occupation	nal sector			
Teleworking experience	Engineering & science (%)	Business & man- agement (%)	Information & communication technology (%)	Legal, social & cultural work (%)	Banking & finance (%)	Sales (%)	Transportation (%)	Other (%)
Higher work concentration	15 (54)	17 (49)	11 (42)	7 (54)	10 (45)	9 (64)	2 (50)	49 (55)
Better burnout prevention	18 (64)	20 (57)	12 (46)	7 (54)	12 (55)	11 (79)	4 (100)	55 (63)
Better stress management	19 (68)	21 (60)	14 (54)	6 (46)	12 (55)	8 (57)	2 (50)	46 (52)
Better relationships with colleagues	8 (29)	12 (34)	8 (31)	5 (38)	6 (27)	3 (21)	1 (25)	24 (27)
Better work-life balance	17 (61)	20 (57)	16 (62)	7 (54)	10 (45)	9 (64)	3 (75)	58 (65)
Higher commitment to employer	8 (29)	15 (43)	12 (46)	8 (62)	5 (23)	9 (64)	2 (50)	43 (48)
Higher task efficiency	11 (39)	15 (43)	14 (54)	7 (54)	8 (36)	8 (57)	2 (50)	44 (49)
Well guided by my employer	17 (61)	16 (46)	16 (62)	7 (54)	12 (55)	6 (43)	4 (100)	61 (69)
Difficult to combine different means of communication	0	3 (9)	3 (12)	2 (15)	5 (23)	3 (21)	0	10 (11)
Often disturbed by family members	11 (39)	5 (14)	7 (27)	5 (38)	8 (36)	3 (21)	0	15 (17)
More professional conflicts	3 (11)	4 (11)	1 (4)	2 (15)	1 (5)	3 (21)	0	11 (12)
More conflicts with my family	3 (11)	0	3 (12)	1 (8)	5 (23)	1 (7)	1 (25)	9 (10)
Overall satisfaction	23 (82)	29 (83)	18 (69)	7 (54)	18 (82)	13 (93)	4 (100)	71 (80)

<sup>\*</sup>Total of respondents who responded with either "totally agree" or "agree" for each of statements.