

## **Balancing Work-Family Life in Cyberspace**

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### **Abstract**

The health virtual communities (HVCs) have created new opportunities for doctor's engagement, as they are the online volunteers who were identified as the core of the cybernetic communities. By jumping to the cyberspace, doctors volunteering online have brought in an extra new domain in their day-to-day lives, which requires them to reconsider in handling matters related to their work and family interfaces. Hence, the issues of such balancing work-family have become a serious focus among medical doctors who will be volunteering online that need to be given more consideration than before. The purpose of this paper is to explore the experience of doctors who utilized ICT to perform online volunteering by analyzing the porosity of work-family border and explore whether they are able to balance both life domains.

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**Keywords:** *Border theory; cyberspace; doctors; online volunteer; work-family balance*

### **Introduction**

Today, netizens are witnessing the mushrooming of a numerous virtual communities on the Internet. One of the communities that are gaining the attention of users, particularly among medical doctors and patients, is the health related virtual communities. The health virtual community (HVC) is where doctors established different forms of Information and Communication Technology (ICT) facilitated platform in providing health related information and consultation with the aim of improving healthcare services (Liu, Zhang, Sun, Jiang, & Tian, 2019). These virtual communities created new opportunities for doctor's engagement, as they are the online volunteers (OV) who are identified as the core of the cybernetic communities. Among the health related tasks that can be conducted remotely via this virtual channel are

offering feedback, adding information, recruiting volunteers, and moderating online discussion. Having a number of voluntary online doctors helps in improving the landscape of the community's website and providing crucial roles of the community's subset (Jochum & Paylor, 2013).

Since virtual community is one of the most interesting phenomena emerged in the cyberspace as different social "life forms", more and more researchers are prone to understand how individuals communicate, work and live in a world of global communication network, in particular searching for a well balance lives. Furthermore, Internet is no longer perceived as an alien due to its usage in performing routine activities that has become a normal habit in an individual's live since the past two decades (Wellman, Quan Haase, Witte, & Hampton, 2001). Almost all people representing all walks of life are persistently using various related Internet technologies in their daily lives because of its effectiveness, efficiency, and time saving. These are the main reasons behind the decision made by doctors who opted to involve in online volunteering programs. By jumping to the cyber space, the doctors volunteering online have brought in an extra new domain in their day-to-day lives.

As doctors volunteer online, different challenges and opportunities requires them to reconsider in handling matters related to their work and family interfaces (Wang, Gao, & Lin, 2019). They can reply to emails on the weekday or weekend, and work off the traditional office setting. When the technology is accessible at any time, several authors (Kotecha, Ukpere, & Geldenhuys, 2014; Schlachter, McDowall, Cropley, & Inceoglu, 2018; Wright et al., 2014) highlights that it may raise serious conflict between work and family. Hence, the issues of such balancing work and family have become a serious focus among medical doctors who will be volunteering online that need to be given more consideration than before (Mustapa, Noor, & Abdul Matalib, 2018).

The rest of this paper is organised as follows: First, we begin with short reviews of the relevant literatures on work-family and volunteering online relationship. Then, we present the cyberspace concept, followed with the theory used in setting out the work-family studies. Next, the data collection procedures is described. After that, we interpret the results from the study. Finally, the discussion and future research of the study are concluded.

## **Relationship between Work-family and Online Volunteering**

### **Online volunteering and Work-family Conflicts**

Researchers had identified work and family conflicts as a main problem for individuals who use ICT for volunteering online (Schlachter, McDowall, Cropley, & Inceoglu, 2018). Conflict happens when the demands of multiple roles (e.g. employee, spouse, online volunteer) which encompasses limited time, energy and commitment pressures with each other (Allen, 2013; Cleave & Doherty, 2005; Cravens, 2014; Greenhaus & Powell, 2006). The persistent use of ICT has great effects on the way work and family life are structured which caused the online volunteering doctors the difficulties in splitting both activities due to the 'borderless' aspect (e.g. no definite time and place) (Yang, Zhang, Shen, Liu, & Zhang, 2019).

Moreover, a number of authors have recognized that although the nature of online volunteering is slightly different from that of the onsite volunteering (face-to-face volunteering), both types of volunteering require real-time commitment (Cravens, 2014; Danaiaata, Gligor-Cimpoieru, Hurbean, & Munteanu, 2013; Schlachter, McDowall, Cropley, & Inceoglu, 2018). Clearly, online volunteering needs time commitment just as onsite volunteering does. Doctors, for example, can perform the online volunteering jobs, anywhere at any time regardless whether at the workplace or home. This style of working, which practice the 'always-on-culture' belief, inherently creates more blurring restrictions between work and family (Leung & Zhang, 2017; McDowall & Kinman, 2017; Wet & Koekemoer, 2016).

A large amount of research also has focused on the negative impact of holding multiple roles. For instance, managing the boundaries between paid work and other life roles (e.g., family and volunteering) generally will lead to work-family conflict and it is potentially more blurred among professionals compared to other blue-collar workers (Adisa, Mordi, & Mordi, 2014; Peng, Ilies, & Dimotakis, 2011). As different occupations have different work demands and, hence, different work-family conflict, Kuschel (2017) recommended that future research on work-family looks into professional jobs (e.g. doctors).

The pressures arising from one domain may impede the involvement in other domains or diminish the quality of life experienced in other domains. Highly demanding jobs, work performance pressure, and increased hours spent at the workplace especially in two-career families require individuals to balance the different life domains (Ellis, 2012; Kazley, Dellifrairie, Lemak, Mullen, & Menachemi, 2016). If the doctors volunteering online are incapable of splitting work from family life or vice versa, they may risk with a high level of conflict. Previous studies have shown that work-family conflict may create dissatisfaction and

depression (Zakaria & Ismail, 2017), affect the quality of life (Sedoughi, Sadeghi, Shahraki, Anari, & Amiresmaili, 2016) and is related to dysfunctional social behavior.

The widespread use of information communication technology (ICT) is being criticized for blending the work and family boundaries and at the same time blur them (Derks, Bakker, Peters, & van Wingerden, 2016; Xie, Ma, Zhou, & Tang, 2018). The technological advancement such as Wi-Fi and smartphone, may allow individuals to be flexible enough to handle their work and non-work tasks, yet at the same time, it obscures the boundaries, which can cause poor work-life balance. As highlighted by Derks et al. (2016), too much permeability of the technology can directly blur the boundaries of the multiple domains, making it difficult to deal with. Bodker (2016) indicated that when individuals are connected to the technologies, they are likely to experience a disturbance in their time and space including family hours. Thus, online volunteers of doctors may unable to find a point of balance between different life domains, which may cause them to experience work-family conflicts.

### **Online volunteering and Work-family Facilitation**

While several researchers have focused on the negative effects of volunteers in balancing work and family, Frone (2003) proposed a positive interaction, or sometimes described as 'work-family enrichment' or 'work-family facilitation'. Work-family facilitation means involvement in one role (such as work/family) can positively influence the other role (such as paid work/ family). According to Goodman (2012), professionals such as doctors, generally will have a better opportunity in gaining the resources (e.g., developmental gains, job characteristics, social support from co-workers and boss, supportive culture, and job reputation) from the environment, which may contribute to work-family facilitation, suggesting that job status may give power to the availability of resources.

Huynh, Xanthopoulou, and Winefield (2013) proposed that work or non-work resources reduce the bad effects of job demands on well-being. Support from family and friend may also alleviate burnout and family conflict related to volunteering (McNamee & Peterson, 2016). Likewise, Cowlshaw, Birch, McLennan, and Hayes (2014) hypothesized that organizational resources, such as training and leadership, gained from volunteering activities enhance work-family facilitation in the sense that the skills or experiences from the volunteering activities improve family task capabilities. Although it has been shown that volunteering can lead to less work-life conflicts, there is a suggestion that multiple roles have inconclusive impacts on work-family balance (Ramos, Brauchli, Bauer, Wehner, & Hämmig, 2015).

## **The Cyberspace**

The cyberspace term refers to a domain that simulates the real one and is built using communication technologies, particularly the Internet. Occasionally cyberspace and the Internet are assumed as identical domains. However, a number of authors think that the term cyberspace embraces more than just the Internet (Clark, 2010; Galik & Tolnaiova, 2019).

Ottis and Lorents (2011) proposed the concept of cyberspace when people interact with information systems and the resulting system can offer other surroundings for communication takes place. The similar views was reported by Yusof, Sukimi, Ismail, and Othman (2011) where cyberspace is a concept comprises of ICT, telecommunications, virtual reality and any technology medium that support people communication. Meanwhile, according to Clark (2010) cyberspace composed of four levels: human level, information level, logical level and physical level. The people are the highest level and the most critical component of cyberspace as they delineate and shape its character by contributing to the content that it offers. He views the cyberspace as a medium that help people to communicate.

Ploug (2009) describes cyberspace as “a virtual place, room or space sustained and accessed through networks of interconnected computers in which agents are interacting” (2009: 69-70).

However, one should bear in mind that cyberspace is more than a virtual domain though it relies on Internet to a great extent. The domain of physical and virtual worlds is strictly connected. The social relations, structures and qualities of people do not vanish in the virtual world (Hamelink, 2015). Researchers again agree with Semercioglu (2017) who stressed that cyberspace is distinct from the virtual domain as it has little connection to the reality which is fabricated, unreal or imaginary. The cyberspace can be viewed as a domain which is principally generated by the expansion and application of ICTs which function as a third domain where one can ties social domains from work or home.

Moreover, previous works on the online and offline communications suggested that as individuals participating online, the cyber domain had change the space and temporal relations as well as the landscape of the traditional borders (Bodker, 2016). For example, individuals who tend to use or moderate a virtual community are in fact situated in physical environment and possibly using a smartphone to talk to somebody nearby him/her. Therefore, both the facet of online and offline settings are combined to create the domain in which the public communications take place (Page, Barton, Unger, & Zappavigna, 2014). Further, the researchers assume that the interrelated structures inside cyberspace remain borderless.

There is also evidence (Jiménez, Orenes, & Puente, 2010) suggested that the virtual border is formed when physical borders and cyberspace borders overlap. This virtual border will produce the unclear border spaces as well as unclear communication situations which may further generate conflict that may embrace those in life external to the cyberspace. For example, Yarbrough (2016) highlight the conflict posed by virtual team especially those who work across diverse culture, space and time may cause them to experience interpersonal conflict between colleagues, family members and friends.

## **Border Theory: An Overview**

### **The Core Concept**

Clark (2000) work-family Border theory (refer Figure 1) is used in setting out the scope of work-family issues among doctor volunteering online in attaining work-family balance. By drawing on the concept of Border theory, Clark (2000) fails to take into account the virtual environment as one of the domain that exist together with the work and family domain with minor separation.

The theory suggests that both work and family are regarded as independent domains that influence one another regardless of physical (place), temporal (time), and psychological borders. The interactivity level between the two domains signifies the strength of the separated border. Those who were spotted passing through the border regularly are deemed as border-crossers (Clark, 2000). The border-crossers are usually able to structure their surroundings and negotiate on the separated line between work and family.

### **The Border**

The 'border' that separate between the work and family domains has to be managed appropriately to produce and sustain a balance between the domains. A borderline is also required to denote the beginning and ending of such domain as defined according to the respective physical, temporal and psychological borders (Clark, 2000). The physical border refers to the location of the domain-relevant behavior such as the actual walls of one's workspace or home, whilst temporal represents the time period adjusted for work and family, such as an individual work schedule. The psychological border, on the other hand, denotes the thinking patterns or emotions of a domain. In comparison, some borders are more permeable than others; permitting a physical movement from one domain to another while others may be psychological in nature. Flexibility, permeability, and blending are three main characteristics of a border, as pointed out by the border theorists (Ashforth, Kreiner, &

Fugate, 2000; Clark, 2000). These three characteristics considered in the border theory (Clark, 2000) will mutually define the strength of a border.

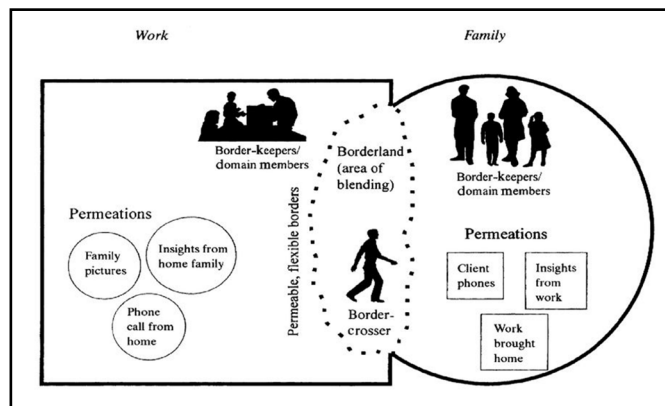


Figure 1. Work-family Border theory (adopted from (Clark, 2000))

## The Arguments

The seeds of researcher's arguments are grounded in the works of border scholars (Field, & Chan, 2018; Garvey, 2007) where this theory does not offer much insight into the mechanisms of engagement in cyberspace, such as doctor volunteering online in HVC. The social interactions in the age of globalization that have been driven significantly by technological expansion has triggered a major rethinking in the Border theory, in the context of work-family interface relationship.

Since ICT is deeply rooted in daily life of doctors volunteering online, Nansen, Arnold, Gibbs, and Davis (2010) speculate that employees may be removed from traditional space and temporal boundaries of work as volunteering opportunities could be 'virtual' these day. Obviously, doctors volunteering online have embed the cyberspace into the physical world, and according to Garvey (2009) and Kossek (2016), it may presents new challenges in how individuals shape the borders of these multiple worlds. Many researchers hold the views that being removed from these cues may blur the boundaries between work and family life (Bodker, 2016; Kossek, 2016; Schlachter, Mcdowall, et al., 2018).

Based on the actively doctor's engagement in HVC as online volunteer, researcher proposed a 'third' domain, known as the cyber domain, which suggests a broader notion of what constitutes domains around the life of doctors volunteering online. The cyber domain served as the basic infrastructure that support the existence of the health virtual community. For this study, researcher interested to explore how the existence of cyberspace changes the way individual manages his or her boundaries.

## **Data Collection**

The study used a case study of the most appealing and unique Health Virtual Community (HVC) in Malaysia. The members of the community are volunteers of pediatric specialists who served in the government and private hospitals. Researcher designed an in-depth, semi-structured interview to elicit detailed information on how doctors volunteering online manage the border surrounding their work and family in attaining sense of balance. A mixed of purposive and snowball sampling strategy was used to recruit the team members. In total, 17 pediatric-related specialists agreed to participate in the interview. 35 percent of the respondents were male and 65 percent were female, with the average age is 40 years old. Most of the respondents (59%) have working experience between 11-15 years, and nearly half of the respondents (53%) were married to medical doctors too.

## **Results**

In terms of physical permeability, 82% of the respondents commented that OV works could take place after working hours at home specifically during their free time. They also rely on the mobility and connectedness at home, which lead to work-family integration, thus no specific space at home is required. Thus, the respondents did not require specific space at home, as stated:

*"I usually work on it at home after work from my laptop. I rely on my home Internet for me to work on my OV tasks or any other related job; indirectly I can integrate my work and my life activities"*

Another respondent commented:

*"Most of my OV work were done from my iPad, so I can be wherever I want be, to do my work at home"*

In terms of the attainment of physical border flexibility, the respondents were asked to describe their job. Here, researcher tried to assess the actual place that work, family and online volunteering activities were conducted. Over half of those interviewed described in details that their work required them to be in the hospital physically (e.g. consulting room, ward, doctor's office) within their official working hours, involving examine patient in the wards, conducting ward rounds, seeing patient in the clinic, and performing management tasks. Thus, they are not many rooms for flexibility to take places as the job often expected



the respondents to be constantly available and responsive within the hospital environment. The jobs and the system in the hospital can be challenging and exhausting especially when respondent is working in a short-handed department, as pointed out by one respondent:

*"I cannot completely switch off when I am on standby call which is on most days of the month, at least 27 days a month in a 30-day month"*

The same intonation was voice by another female respondent with two children who stated that the demand of job limited her thinking to other unrelated matters:

*"Only during the time when I have spare time. If my work finish early, I think I may have time to think, but most of the time we deal with a lot of emergency, there's no time to think"*

Even though the respondents were tied to the workplace during working hours, it does not hinder them from engaging with online activities such as performing OV tasks as the availability of the technology (be it Internet or mobile devices) gave them more choices in regards to selection of the time and place. The mobile technology particularly the smartphone provided the respondents options to select from a range of work and non-work spaces. For example, one respondent commented on how she was able to juggle everything such as doing note taking of her OV works through her mobile device during her long drives to reach home:

*"I have calendars to remind me, in the smartphone. And then is let's say if I was thinking of any idea I wanted to share while driving, I will note on the smartphone, after that I will refer to the idea later"*

One of the respondent claimed that she can performed her OV works at anywhere she loves:

*"With technologies such as smartphone, Wi-Fi and so forth, my volunteering can be on the go (on my mobile) or at my desk (on my pc)"*

From the view of flexibility of temporal border aspect, all of the respondents reported long working hours. Their views were slightly different based on where they practice their career (private or government hospital). Even though the normal working hours for respondents who worked in government hospital is between 50 to 60 hours per week, however most of them rarely can go back in time due to lots of work or avoiding traffic jams. One respondent commented his work hours could reach up to 80 hours in a week and not included his on-call

hours (basically one to two days in a week) as compared to other normal workers in the workforce.

A female respondent with five children expressed how she struggle with life as doctor, mother, undertake her fellowship training and further staying a bit far from work location. Her statement is as follows:

*"... our work is a lot, we have a lot of work, it is a lot to complete, so sometimes you can't go home. Ermm ... most of the time it's not flexible maybe because I'm doing fellowship so I'm quite busy ... Normal hours 7.30am - 4.30pm but I rarely can make it. It can be up to 5.30pm, then on weekend I supposed to work in the ward, to see patient in the ward. Sometimes 8 hours per day ... Basically I can't fixed my schedule ..."*

A small number of respondents from private hospital (29%) reported that their work hours were almost similar to those in government hospital. However, most of them work 6 days in a week as normal working days. Even though their work hours are similar, however some of them have to be on-call for almost every day as stated by following respondents:

*"... I am on-call on most days of this hospital, clinic hours is from 9am to 5.30pm and on standby call for emergencies 24 hours a day. I am only off duty for two weekends a month if I can find a replacement doctor to cover for me".*

The respondents also described how their 'flexible work hours' affected their family and other commitment which demanded them to strategize soundly between work and family lives. The respondents organized their family time around work as their hectic schedule and high demand work did not secure time with family.

One of the respondents explained of 'scheduling in' her family time and managing the commitments of being a parent, spouse and online volunteer, when she stated:

*"My family time is scheduled around my work and my DB ... Mostly, I plan my life around that ... I don't block my family time, but I block my work. Then only I managed my family time around that"*

Blending occurs when both high degree of flexibility and permeability is present around the borders (Clark, 2000). In other words, the borders of the domains are mixing up. Similarly, in Ashforth et al. (2000)'s work, blending aspects of the domains is called as integration whereas keeping these aspects separate is called as segmentation. For example, a male respondent described the OV work as just another part of responsibilities in his life that can be managed when he said:

*"No, it does not give any problems to me, since OV is flexible and does not tie me up ... I can do my OV works after work hours and it does not involve my work time"*

A majority (71%) of the respondents reported that volunteering online enable them to perform their OV work anywhere and at any time. Using the ICT tools has allowed the respondents to integrate aspect in their work and family life better.

A male respondent stated that he integrated work-family activities while doing the online volunteer works:

*"I rarely create any definite separation, since I can do my OV works anytime, and be with my family as well"*

Another respondent, a senior pediatrician expressed his belief in life as:

*"I was able to integrate all my regular activities, blend rather than split my time between work, family, volunteering work, and also my clinical care, teaching. You know being a doctor will eat up the time and energy you are willing to give ... Except there is an absolute emergency, then I prefer not to be disturbed. If I had to be on-call on night which usually reserved for my family time, then I had to make trade off, you know for the losing times."*

Permeability, flexibility and blending combine to define the strength of the border. A strong border is constructed when the border are very impermeable, inflexible and do not allow blending. In terms of time and space, most of the respondents (88%) indicated that they need to give undivided attention to their job. Given the high-pressure work environment means, they need to give a hundred percent commitment at work. The respondents also mentioned that they need to focus to their job on most of the time especially when they were being on-call. In managing the border strength of psychological, majority of the respondent (65%)

focused completely on work while at workplace. The respondents claimed that when they were actively involved with their job such as patient or in during consultation, the thinking about others things like family or OV tasks were removed away. A female respondent makes it clear that the two domains should not be mixed up as stated:

*“When at work, no. I don’t think about home. For me work needs to be work and home needs to be home. For me at least, there couldn’t be a grey area”*

When individual are not doing work matters at home, then the border is considered as strong. However, if individuals tend to bring and do work matters at home, the border is weak. A senior consultant suggested that being a doctor requires the respondents to blend their work and family life as it is the nature of the job. He stated:

*“Sometimes. You know, I realize that as a doctor, the work will absorb a large part of our life, so it's normal if you had that feeling. Think of your patients, your unfinished assignments and others”*

## **Discussion**

With the advent of the ICT such as smartphones and wireless Internet, permeability of the work and family boundaries for doctors volunteering online has increases as work or family is no longer restricted to any particular areas (physical) or times (temporal). Even though the ICT helps them to make their physical, temporal or psychological permeations particularly as OV easier, however this permeability is sometimes views as distraction or interference especially when respondents are at the workplace because they have little control over the placement of work and non-work boundaries. On the contrary, when doctors were at home, the borders permeability have been found to extend the traditional working times and working area as they can deliberately choose when, where and what to think with the support of ICTs tools, leading to a lack of time and difficulty dealing their daily life. This means that it is challenging to delineate the border between work and family in medical professions.

The results showed that when doctors volunteering online use ICTs to perform OV work whether at home or during working hours, they perceive their work and family borders as flexible. Respondents electronically attend to some OV task, or assignment through website or social media sites at any time. The results also suggested that low flexibility and high permeability of work and family borders, rather than ICT use at home, had much stronger influences on increasing work-family conflict and technostress (especially techno-invasion). The respondents explained that the online volunteering works were performed at different

domains, at workplace (e.g. in-between break hour), in the home domain or after office hours (e.g. while driving back home, over the weekend). Therefore, a flexible workplace and reasonable family support are required for employees to maintain a positive balance between work and family.

Blending occurs when a great deal of permeability and flexibility occurs. Blending ensures that the area around the presupposed border is no longer exclusive of one domain or the other but it blends both work and family, creating a border land which cannot be exclusively called either domain. Most of the respondents were more satisfied when they integrate and combine their work-family lives especially when the use of ICT tools such as smartphones facilitate the process of integrating multiple domains.

Doctors volunteering online experience frequent role blurring owing to the weak borders that existed in their work and family lives. The borders are tremendously porous making work-family intrusion among doctors in both direction either work to family or family to work. According to Kreiner, Hollensbe, and Sheep (2009), this occurrence is termed as 'allowing differential permeability'. The participants' work obligations and their strong desire to be treat patients more generate their prioritization of work over family or other non-work tasks such as online volunteering, resulting in very weak borders.

Researchers hence disputed that weak borders are open to influence and are susceptible to integrate different life domains since flexibility and permeability occur in the border space (Ashforth et al., 2000; S. C. Clark, 2000; Kreiner et al., 2009). Doctors volunteering online normally honor and change their consideration principally to the work domain as it is a central element in doctor-patient communication, and they have a tendency to travel with the work sphere everywhere they go.

## **Conclusion**

The attainment of satisfactory work-family equilibrium are subject to individuals' preferences for boundaries because individuals vary in the degree to which they separate their work life from family life. Moreover, the creation of boundaries by individuals is a matter of subjective preference (Rothbard, Phillips, & Dumas, 2005). The findings indicate that doctors volunteering online preferences for domain role integration is enriched by the ICT, such as smartphones, Wi-Fi connections, etc. which permit them to move around and attend to their work and non-work activities. As mentioned, when doctors volunteer online, the physical and temporal border has deteriorated. According to Kossek (2016), the way individuals demarcate the borders is depending on factors such as the work role identification, the nature of job,

flexibility of workplace policies, the family condition as well as the sense of control toward their work and the borders.

Researchers found the porosity of the border between the work and family domains when doctors volunteering online is one of the major aspect impacted the border concept in Clark's Border theory. Up until now, there is a lack of understanding on the concept of borders (physical, temporal and psychological), whereby integration of ICT in the cyber domain do not demarcate the perimeter and space of a particular domain for instance, a role, a home, a workplace. Thus it is quite challenging for doctors volunteering online to distinguish one sphere from another, once the physical location of the workplace has become obsolete, the temporal (time) border is blurred as it can be operated out of traditional working hours and doctors psychologically incapable of limiting their own use of ICT as it has become daily practices and habits.

As a conclusion, the borders mentioned by Clark (2000) are slowly disappearing due to the embracement of the ICT as it has facilitated border crossing between the work and family domains, by turning homes into electronic work spaces, spreading work into family time and vice-versa. Given the current trend of volunteering through online platform, professional and individuals are encouraged to work from different geographical area and times creating a borderless working culture. The way doctors volunteering online construct and navigate the boundaries around involves minor or extreme adaptation, so as to achieve a balance between all domains encounter. Researchers hope that the findings presented in this study serves as an accelerator for more study on ICTs and online volunteering in attaining work-family balance.

## **Future Research**

In fact, up till now the central concerns with the Border theory relate to the lack of consideration of other domains in life except work and family domains in achieving work-family balance, specifically among doctors volunteering online. The work-family Border theory is inadequate to explain the full dynamic of doctors volunteering online engagement in attaining desired sense of balance as the borders can be intersected and blended by more potential domain.

The study had suggested a third domain that has embedded along with the work-family domains, and the new domain being named "cyber" domain. Like the two existing domains, this cyber domain was very important to doctors volunteering online in HVC as it will injected a new perspective in better understanding ways in achieving great sense of balance, by offering a single, similar spheres, with deep overlaps between the domains, constructing a

'boundary less' borders. Thus, the cyber domain is proposed to be one of the domains that has become part of work-family life, as it has embedded along with the other domains.

This new developed conceptual framework that integrated all blended domains will be a major milestone contributing towards current literature of work-family balance and ICT developments research studies. The conceptual framework may offer a unique feature that was established based on the deep responses and opinions of the doctors volunteering online actual experiences.

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#### **References**

- Adisa, T. A., Mordi, C., & Mordi, T. (2014). *The challenges and realities of work-family balance among Nigerian female doctors and nurses*. *Economic Insights-Trends and Challenges*, 3(3), 23–37. Retrieved from [https://www.researchgate.net/publication/311570004\\_The\\_Challenges\\_and\\_Realities\\_of\\_Work-Family\\_Balance\\_among\\_Nigerian\\_Female\\_Doctors\\_and\\_Nurses](https://www.researchgate.net/publication/311570004_The_Challenges_and_Realities_of_Work-Family_Balance_among_Nigerian_Female_Doctors_and_Nurses)
- Allen, T. D., Johnson, R. C., Kiburz, K. M., & Shockley, K. M. (2013). Work-family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*, 66(2), 345–376. doi:10.1111/peps.12012
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Academy of Management Review*, 25(3), 472–491. doi:10.5465/AMR.2000.3363315
- Bodker, S. (2016). Rethinking technology on the boundaries of life and work. *Personal and Ubiquitous Computing*, 20(4), 533-544. doi.org/10.1007/s00779-016-0933-9

- Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6), 747–770. doi: 10.1177/0018726700536001
- Clark, D. (2010). *Characterizing cyberspace: past, present and future*. MIT CSAIL, Version 1, 2016-2028. Retrieved from <http://web.mit.edu/ecir/pdf/clark-cyberspace.pdf>
- Cleave, S., & Doherty, A. (2005). Understanding volunteer and non-volunteer constraints: a mixed-method approach. *Paper presented at the 11th Canadian Congress on Leisure Research*. Canada: Canadian Association for Leisure Studies
- Cowlshaw, S., Birch, A., Mclennan, J., & Hayes, P. (2014). Antecedents and outcomes of volunteer work-family conflict and facilitation in Australia. *Applied Psychology*, 63(1), 168–189. doi: 10.1111/apps.12000
- Cravens, J. (2014). *Internet-mediated volunteering in the EU: Its history, prevalence, and approaches and how it relates to employability and social inclusion*. JRC Working Papers JRC85755, Joint Research Centre. Retrieved from <http://ftp.jrc.es/EURdoc/JRC85755.pdf>
- Danaiața, D., Gligor-Cimpoieru, D. C., Hurbean, L., & Munteanu, V. (2013, November). The potential of employees online volunteering in Romania. *Proceedings of the 7th International Management Conference* (pp.174-186). Bucharest, Romania: Capstone Publishing Ltd
- Derks, D., Bakker, A. B., Peters, P., & van Wingerden, P. (2016). Work-related smartphone use, work–family conflict and family role performance: The role of segmentation preference. *Human Relations*, 69(5), 1045-1068. doi:10.1177/0018726715601890.
- Ellis, S. J. (2012). *New trends in volunteering and how to tap into them*. *NonProfit World*, 30(2), 22–24. Retrieved from [www.snpo.org/members/Articles/Volume30/Issue2/V300222.pdf](http://www.snpo.org/members/Articles/Volume30/Issue2/V300222.pdf)



- Field, J. C., & Chan, X. W. (2018). Contemporary knowledge workers and the boundaryless work–life interface: Implications for the human resource management of the knowledge workforce. *Frontiers in Psychology*, 9, 2414. doi: 10.3389/fpsyg.2018.02414
- Frone, M. R. (2003). *Work family balance*. In J. C. Quick, & L. E. Tetrick (Eds), *Handbook of Occupational Health Psychology* (pp.143-162). Retrieved from [https://www.researchgate.net/publication/259177003\\_Work-Family\\_Balance/link](https://www.researchgate.net/publication/259177003_Work-Family_Balance/link)
- Galik, S., & Tolnaiova, S. G. (2019). *Cyberspace as a new existential dimension of man*. In *Cyberspace*. IntechOpen. Retrieved from [https://www.researchgate.net/publication/334995441\\_Cyberspace\\_as\\_a\\_New\\_Existential\\_Dimension\\_of\\_Man](https://www.researchgate.net/publication/334995441_Cyberspace_as_a_New_Existential_Dimension_of_Man)
- Garvey, G. P. (2009). *New Realities: Choices in virtual world - Using boundary/borders theories*. In R. Ascott, G. Bast, W. Fiel, M. Jahrmann, & R. Schnell, *New Realities: Being Syncretic* (pp. 127-131). doi: 10.1007/978-3-211-78891-2
- Goodman, A. (2012). *Work–life balance*. In R. Urman, J.M., Ehrenfeld, *Physicians' pathways to non-traditional careers and leadership opportunities* (pp. 25-34). doi: 10.1007/978-1-4614-0551-1
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31(1), 72-92. doi: 10.5465/AMR.2006.19379625
- Hamelink, C.J. (2000). *The ethics of cyberspace*. Retrieved from [https://www.researchgate.net/publication/328093052\\_Cees\\_Hamelink\\_The\\_Ethics\\_of\\_Cyberspace/link/5bc5dfff458515f7d9bf627b/download](https://www.researchgate.net/publication/328093052_Cees_Hamelink_The_Ethics_of_Cyberspace/link/5bc5dfff458515f7d9bf627b/download)

- Huynh, J. Y., Xanthopoulou, D., & Winefield, A. H. (2013). Social support moderates the impact of demands on burnout and organizational connectedness: A two-wave study of volunteer firefighters. *Journal of Occupational Health Psychology*, 18(1). doi: 10.1037/a0030804
- Jimenez, A. G., Orenes, P. B., & Puente, S. N. (2010). An approach to the concept of a virtual border: Identities and communication spaces. *Revista Latina de Comunicación Social*, (65). doi: 10.1.1.190.1239
- Jochum, V., & Paylor, J. (2013). *New ways of giving time: Opportunities and challenges in micro-volunteering. A literature review*. Institute for Volunteering Research, NCVO. Retrieved from <http://www.ivr.org.uk>.
- Kazley, A. S., Dellifraire, J., Lemak, C. H., Mullen, C., & Menachemi, N. (2016). Work-life balance among health administration faculty who are parents. *Journal of Health Administration Education*, 33(2), 333-350. Retrieved from <https://www.ingentaconnect.com/contentone/aupha/jhae/>
- Kossek, E. E. (2016). Managing work-life boundaries in the digital age. *Organizational Dynamics*, 45(3), 258-270. doi: 10.1016/j.orgdyn.2016.07.010
- Kotecha, K., Ukpere, W., & Geldenhuys, M. (2014). Technology and work-life conflict of academics in a South African higher education institution. *Mediterranean Journal of Social Sciences*, 5(2), 629-629. doi: 10.5901/mjss.2014.v5n2p629.
- Kreiner, G., Hollensbe, E., & Sheep, M. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. *Academy of Management Journal*, 52(4), 704–730. doi: 10.5465/AMJ.2009.43669916

- Kuschel, K. (2017). The work-family field: gaps and missing links as opportunities for future research. *Innovar*, 27(66), 57-74. doi: 10.15446/innovar.v27n66.66711
- Leung, L., & Zhang, R. (2017). Mapping ICT use at home and telecommuting practices: A perspective from work/family border theory. *Telematics and Informatics*, 34(1), 385-396. doi: 10.1016/j.tele.2016.06.00
- Liu, Y., Zhang, X., Sun, J., Jiang, Y., & Tian, Z. (2019). Understanding patients' WOM of IT-enabled healthcare service: A case study of online health consultation. *Paper presented at the 52nd Hawaii International Conference on System Sciences*. doi: 10.24251/HICSS.2019.086
- McDowall, A., & Kinman, G. (2017). The new nowhere land? A research and practice agenda for the "always on" culture. *Journal of Organizational Effectiveness: People and Performance*. doi 10.1108/JOEPP-05-2017-0045.
- McNamee, L. G., & Peterson, B. L. (2015). High-stakes volunteer commitment: A qualitative analysis. *Nonprofit and Voluntary Sector Quarterly*, 1–20. doi: 10.1177/0899764015581055
- Mustapa, N. S., Noor, K. M., & Mutalib, M. A. (2018). Why can't we have both? A discussion on work-life balance and women career advancement in Malaysia. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 5(3), 103-112. doi: 10.13106 /jafeb. 2018. vol5.no3.103
- Nansen, B., Arnold, M., Gibbs, M., & Davis, H. (2010). Time, space and technology in the working-home: An unsettled nexus. *New Technology, Work and Employment*, 25(2), 136–153. doi: 10.1111/j.1468-005X.2010.00244.x

- Page, R., Barton, D., Unger, J. W., Zappavigna, M., & Akayoglu, S. (2016). *Researching Language and Social Media: A Student Guide*. doi: 10.4324/9781315771786
- Peng, A. C., Ilies, R., & Dimotakis, N. (2011). Work-family balance, role integration and employee well-being in creating balance. *International Perspectives on the Work-Life Integration of Professionals*, 121–140. doi:10.1007/978-3-642-16199-5
- Ploug, T. (2009). *Ethics in cyberspace: How cyberspace may influence interpersonal interaction*. doi:10.1007/978-90-481-2370-4
- Ramos, R., Brauchli, R., Bauer, G., Wehner, T., & Hämmig, O. (2015). Busy yet socially engaged: Volunteering, work-life balance and health in the working population. *Journal of Occupational and Environmental Medicine*, 57(2), 164–172. doi:10.1097/JOM.0000000000000327
- Schlachter, S., McDowall, A., Cropley, M., & Inceoglu, I. (2018). Voluntary work-related technology use during non-work time: A narrative synthesis of empirical research and research agenda. *International Journal of Management Reviews*, 20(4), 825-846. doi: 10.1111/ijmr.12165
- Sedoughi, Z., Sadeghi, M., Shahraki, S. K., Anari, S. H. S., & Amiresmaili, M. (2016). The relation of work, family balance, and life quality of nurses working at teaching hospitals of Kerman-Iran. *Bali Medical Journal*, 5(1), 124-129. doi: 10.15562/bmj.v5i1.280.
- Semercioglu, H. C. (2017). *Reading Twitter's mode of operation through lacan: The experience of the real in social media age (Doctoral dissertation)*. Retrieved from [https://www.academia.edu/33725565/Reading\\_Twitters\\_Mode\\_of\\_Operation\\_The\\_Experience\\_of\\_the\\_Real\\_in\\_Social\\_Media\\_Age](https://www.academia.edu/33725565/Reading_Twitters_Mode_of_Operation_The_Experience_of_the_Real_in_Social_Media_Age)

- Wang, X., Gao, L., & Lin, Z. (2019). Help or harm? The effects of ICTs usage on work–life balance. *Journal of Managerial Psychology*. doi: 10.1108/JMP-02-2019-0093
- Wellman, B., Haase, A., Witte, J., & Hampton, K. (2001). Does the internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45(3), 436–455. doi: 10.1177/00027640121957286
- Wet, W. de, & Koekemoer, E. (2016). The increased use of information and communication technology (ICT) among employees: Implications for work-life interaction. *South African Journal of Economic and Management Sciences*, 19(2), 264–281. doi:10.17159/2222-3436/2016/v19n2a7
- Wright, K. B., Abendschein, B., Wombacher, K., O'Connor, M., Hoffman, M., Dempsey, M., Shelton. (2014). Work-related communication technology use outside of regular work hours and work life conflict: The influence of communication technologies on perceived work life conflict, burnout, job satisfaction, and turnover intentions. *Management Communication Quarterly*, 0893318914533332–. doi: 10.1177/0893318914533332
- Xie, J., Ma, H., Zhou, Z. E., & Tang, H. (2018). Work-related use of information and communication technologies after hours (W\_ICTs) and emotional exhaustion: A mediated moderation model. *Computers in Human Behavior*, 79, 94-104. doi: 10.1016/j.chb.2017.10.023.
- Yang, J., Zhang, Y., Shen, C., Liu, S., & Zhang, S. (2019). Work-Family Segmentation Preferences and Work-Family Conflict: Mediating Effect of Work-Related ICT Use at Home and the Multilevel Moderating Effect of Group Segmentation Norms. *Frontiers in Psychology*, 10, 834. doi: 10.3389/fpsyg.2019.00834
- Yarbrough, J. R. (2016). Managing virtual interactions with theory, boundaries and choice. *The Journal of Human Resource and Adult Learning*, 12(2), 1–9.

Yusof, A. R. M., Sukimi, M. F., Ismail, S. B., & Othman, Z. B. (2011). The cyber space and information, communication and technology: A tool for westernization or orientalism or both. *Journal of Computer Science*, 7(12), 1784-1792. doi: 10.3844/jcssp.2011.1784.1792

Zakaria, N., & Ismail, Z. (2017). The consequences of work-family conflict and the importance of social supports to reduce work-family conflict among employees. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 2(2), 25-30. Retrieved from <https://msocialsciences.com/index.php/mjssh/article/view/396/273>