***Virtual Community of Practice: Knowledge Sharing and Organizational Change Among Army Women***

Orly Ganany-Dagan1\*, Zeev Greenberg,1 Michal Leizerovitch2

1Tel-Hai College, Upper Galilee, 1220800 Israel

2Mahut Israel, P.O. Box 147, Givat Shmuel, 5410002 Israel

# *Abstract*

This mixed-methods study examines how the Wonder Women virtual community impacts career military women's experiences, addressing knowledge sharing relationships, demographic engagement patterns, and community influence on belonging and organizational adaptation. Using interviews and focus groups with 16 community members and quantitative measures from 204 participants, this study reveals surprising findings about virtual community dynamics in hierarchical organizations.

Community membership and influence create distinct knowledge-sharing pathways with no significant differences across military ranks—challenging assumptions about hierarchical constraints. An optimal engagement window (1-3 years tenure) reveals predictable developmental cycles, with mothers showing significantly higher virtual engagement than non-mothers. Qualitative analyses identified three challenge areas—expectation gaps, work-family integration, and cultural barriers—each addressed through community-based solutions that transform individual experiences into organizational change.

The study extends virtual community theory by demonstrating how gender-specific communities transcend organizational hierarchy, create alternative knowledge pathways, and drive concrete policy changes including family counseling centers and modified maternity policies. These findings suggest that supporting informal virtual communities represents a strategic organizational capability for enhancing both individual well-being and institutional effectiveness in hierarchical military contexts.

Keywords: Virtual Community of Practice (VCoP), knowledge sharing, hierarchical organizations, military women, virtual community engagement

**Virtual Community of Practice: Knowledge Sharing and Organizational Change Among Army Women**

Although theoretical studies have addressed organizational change processes related to employee belonging and engagement (e.g., Jesiek et al., 2018), empirical research on professional virtual communities’ impact, particularly for women in hierarchical organizations like the military, remains limited. This study explores how one such community supports women in navigating career military service challenges. Research shows disparities in well-being and belonging across genders and organizations (Gallup, 2016; Miller & Adkins, 2016), with women’s integration and advancement in military contexts receiving increasing attention (Fieldhouse & O'Leary, 2023; Harel & Popper, 2024). However, the contribution of these informal communities to career servicewomen’s well-being remain understudied. This research addresses this gap.

As mission-driven organizations, militaries require personnel alignment with organizational goals (Hakanen et al., 2019). The Israeli Defense Forces (IDF), established in 1948, uniquely mandates women’s conscription. Over 90% of positions are now open to women, reflecting progress in gender inclusivity (Karazi-Presler et al., 2018; Harel & Popper, 2024). Mandatory service spans two to three years for 18- to 21-year-olds, after which most return to civilian roles. However, some continue in career positions with regular performance evaluations leading to promotions or release (Loker et al., 2015), with commitment to the IDF influenced more by intrinsic factors such as job satisfaction and social connections rather than extrinsic rewards (Dolav & Pedan, 2014).

There are three interconnected bodies of knowledge essential for understanding how virtual communities support women in military contexts. We begin with a broad examination of virtual communities of practice (VCoPs) as organizational phenomena, followed by an exploration of the relationship between sense of belonging and work engagement in organizational settings more generally. Finally, we address the unique challenges of work engagement in military organizations, with particular attention to gender dynamics. This progressive narrowing of focus establishes the theoretical foundation for examining the Wonder Women community as a case study of how virtual communities can address gender-specific challenges in hierarchical military contexts.

## *Virtual Communities of Practice (VCoP)*

Delant (2012) conceptualizes a virtual community as a symbolic system - a cultural-normative model that promotes social and political practices and institutional arrangements. In organizational contexts, VCoPs represent shared spaces for dialogue where “people share a concern, a set of problems, or a passion about a topic, and deepen their knowledge and expertise in this area through ongoing interaction” (Wenger et al., 2002, p. 4).

Virtual communities of practice represent a specific subset of virtual communities focused on professional knowledge development and skill advancement (Wenger et al., 2002). However, these categories often overlap in organizational contexts where professional challenges intersect with personal experiences, creating hybrid communities that serve multiple functions simultaneously.

VCoPs manifest in two primary forms: organization-established communities that function as formal managerial tools for information gathering and message transmission (Dubé et al., 2006), and voluntary communities formed by employees for various purposes (Delgado et al., 2021). Although VCoPs face challenges due to limited face-to-face interaction and potential communication barriers, they offer significant advantages. Dei and van der Walt (2020) emphasize their value in managing both formal and informal organizational knowledge, noting their multi-dimensional practical benefits in reducing costs and streamlining information transfer. Additional benefits include flexible communication timing, connection of diverse perspectives, and the ability to build shared organizational values. Research demonstrates how social capital and civic engagement increase as virtual communities develop around physical communities (Blanchard & Horan, 2000; Miño-Puigcercós et al., 2019). Furthermore, VCoPs can enhance employees’ sense of belonging to a broader organizational community beyond immediate teams.

Recent research on gender-specific virtual communities indicates distinctive characteristics in their communication patterns and group identity formation (Banihani et al., 2013). Like general VCoPs, focused leadership is used to maintain community goals and ethical boundaries, but these communities often emphasize careful member selection and encourage active participation. VCoPs have been shown to offer general benefits in organizational contexts, but their specific impact on employees’ sense of belonging and work engagement requires further examination, particularly in gender-specific communities. Understanding how these communities foster connection and commitment is essential for assessing their organizational value.

Gender-specific virtual communities develop distinctive characteristics in organizational contexts, often emerging to address challenges inadequately addressed through formal structures (Banihani et al., 2013). In hierarchical organizations like military institutions, these communities create alternative spaces for voice and influence, providing platforms for addressing systemic issues and developing collective responses to gender-specific organizational challenges.

## *Virtual Communities: From Physical to Digital Spaces*

The transition from physical to virtual communities represents a fundamental shift in how social connections and professional networks develop. Dei and van der Walt (2020) argue that virtual communities can replicate and even enhance the benefits of physical communities by providing flexible access, diverse perspectives, and reduced geographical constraints. This is particularly relevant in military contexts where personnel may be stationed in different locations or have varying schedules that make physical meetings challenging. Virtual communities differ from their physical counterparts in several key ways. First, they enable asynchronous communication, allowing members to participate according to their individual schedules and time zones (Blanchard & Horan, 2000). Second, they can facilitate more egalitarian participation by reducing the influence of physical presence, rank visibility, or other hierarchical markers that might inhibit contribution in face-to-face settings (Miño-Puigcercós et al., 2019). Third, virtual platforms can support multiple forms of interaction simultaneously—from one-to-one messaging to group discussions to information sharing—creating a richer communication environment than traditional meeting formats. However, virtual communities also face unique challenges. The absence of physical cues can sometimes lead to miscommunication or reduced social presence (Abfalter et al., 2012). Additionally, maintaining engagement and preventing digital fatigue requires different strategies than those used in physical communities. Sense of Virtual Community (SOVC) captures members' psychological attachment and engagement within digital environments, encompassing information-seeking behaviors, knowledge contribution patterns, perceived impact, and contextual framing of virtual platforms—dynamics unique to virtual rather than physical community participation (Chen et al., 2013). Despite these challenges, research consistently shows that well-managed virtual communities can achieve high levels of member satisfaction, **knowledge sharing**, and collective efficacy (Chen et al., 2013). In organizational contexts, virtual communities serve dual functions: they provide informal support networks for employees while also creating channels for organizational learning and change (Dei & van der Walt, 2020). This dual nature is particularly evident in communities like Wonder Women, where personal support and professional development intersect within a broader organizational change agenda.

## *Sense of belonging and work engagement*

These interrelated concepts are fundamental to organizational success. A “sense of belonging” represents an employee's psychological connection and identification with their organization, influencing their effort investment, goal dedication, and loyalty (Delgado et al., 2021; Zaman et al., 2025). Work engagement, defined as a positive, fulfilling work-related state, is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002).

Research consistently shows that organizational belonging and engagement benefit both employees and organizations. Organizations demonstrate commitment through social support (Patro, 2013), while employees align with organizational values and objectives (Hakanen et al., 2019). These dynamics result in increased personal initiative, improved outputs, efficient time utilization, reduced turnover, and cost savings (Schaufeli et al., 2002).

Engaged employees typically display greater optimism, maintain stronger interpersonal relationships (Jena et al., 2018), and demonstrate higher perseverance and self-esteem (Scrima et al., 2014). They show enhanced responsiveness to learning opportunities and greater willingness to support colleagues and assist in decision-making (Channa, 2020; Verčič & Vokić, 2017). Conversely, low engagement can lead to work role disconnection and performance decline, affecting organizational goal achievement (Sarangi & Nayak, 2016).

Organizations can foster engagement through various mechanisms: addressing employee suggestions, increasing organizational commitment, and promoting management transparency (Sarangi & Nayak, 2016). Success factors include career development discussions, recognition programs, flexible working arrangements, fair compensation, and participative decision-making opportunities (Patro, 2013).

These dynamics of belonging and engagement, while well-documented in general organizational settings, take on distinctive characteristics in highly structured hierarchical institutions like the military, where professional demands often extend far beyond standard workplace expectations. The unique nature of military service creates specific challenges for fostering engagement, especially among women navigating both professional and personal responsibilities.

## *Work engagement in military organizations*

Hierarchical organizations traditionally constrain informal network formation through power differentials and vertical communication emphasis (Dubé et al., 2006). However, virtual platforms may transcend some hierarchical constraints by reducing rank visibility and enabling expertise-based rather than authority-based influence, creating opportunities for "hierarchy transcendence.

Military institutions present a unique organizational context, demanding comprehensive commitment from both conscripted and career professionals (O'Mahony et al., 2017). This commitment extends beyond standard working hours, requiring service members to respond whenever duty calls. The military organizational structure typically features a hierarchical command system where leadership positions predominantly emerge from combat roles.

Current organizational challenges include addressing new workforce trends such as the “Great Resignation” and “Quiet Quitting,” where employees increasingly prioritize well-being alongside work commitments (Elran et al., 2021; Formica & Sfodera, 2022). These pandemic-era trends demand new HR approaches. Shirmohammadi et al. (2022) and Pass and Ridgway (2022) highlight tensions between expectations and reality in remote work settings, including flexibility versus intensity and technology benefits versus stress. The necessitate strategic shifts in human resource management approaches, particularly in developing strategies for enhancing employee well-being, belonging, and motivation.

Recent studies in gender dynamics within military organizations highlight three critical factors for women's professional development and engagement: (a) proper and tailored mentoring, especially early in their careers; (b) a climate of gender equality, particularly crucial in male-dominated environments where men are numerically or functionally dominant; and (c) professional development opportunities (Mohammadkhani & Dariush, 2016; Moser & Branscombe, 2022). According to these studies, women’s engagement in an organization helps create positive working experiences. Improving these aspects can contribute to women’s advancement and influence broader organizational policy changes regarding employment opportunities, addressing the current reality where women are still often employed in lower management positions.

The particular challenges women face in military organizations—from mentoring gaps to gender climate issues—highlight the potential value of supportive communities that address these specific needs. In the context of these challenges, informal virtual communities may serve as critical resources for women attempting to navigate both career advancement and personal well-being within military institutions. The Wonder Women community provides a compelling case study for examining these dynamics in practice.

## *The Wonder Women VCoP: A Case Study Context*

The Wonder Women community, established in 2016, represents a growing trend of physical and virtual communities within the Israeli Defense Forces (IDF) (H & Bar-Shindler, 2022). It operates as an informal VCoP composed of women who are active-duty conscripted soldiers and career service members. Founded by two female professional service members, the community was initially created to address the social and practical needs of women service members, particularly those balancing motherhood with military service.

The community operates primarily through WhatsApp and Facebook platforms, initially serving as a space for women who had recently given birth, were on maternity leave, or were struggling to balance home and work responsibilities. Over time, the community has evolved and expanded, creating sub-communities addressing various issues including fertility treatments, pregnancy, breastfeeding during service, and other challenges specific to women in military service. At the time of this research, the community had grown to include over 4,000 members (Authors, 2025).

What makes Wonder Women unique among VCoPs is its bottom-up formation, initiated by the women themselves in response to member needs. The community operates with a network structure rather than a hierarchical one, creating a protected environment for female consultation within a predominantly male organization. Although the primary mode of interaction is virtual, some community members also meet face-to-face outside of work hours. The community’s growth and evolution reflect its success in meeting the needs of women service members while maintaining strong connections to the formal organizational structure of the IDF.

This combination of informal support network and professional community makes Wonder Women an ideal case study for examining how virtual communities have an impact on women’s experiences in hierarchical organizations, particularly regarding their sense of belonging and engagement. By focusing on this community, we can observe how informal support structures emerge to address challenges that formal organizational frameworks may not fully accommodate, creating a bridge between personal experience and institutional change.

## Theoretical Framework

This study draws on the theoretical foundations conceptualized by McMillan and Chavis (1986), who defined sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (p. 9). Their theory identifies four key elements: (a) *membership* (boundaries and sense of belonging), (b) *influence* (members’ impact on the community and vice versa), (c) *integration and fulfillment of needs* (reinforcement through meeting members’ needs), and (d) *shared emotional connection* (shared history and identification). McMillan and Chavis’s (1986) four elements may manifest differently in virtual military contexts. Membership involves digital access and professional acceptance; influence may find alternative expression through virtual participation despite formal hierarchy constraints; fulfillment of needs may or may not be met due to challenges inherent in formal military structures; and shared emotional connection may be enhanced by common service experiences while at the same time being complicated by professional competition and security concerns.

Building on this foundational theory, the current study employs two complementary measurement approaches. The *Sense of Community Index 2* (SCI-2) operationalizes McMillan and Chavis’s theoretical framework through 24 Likert-type items measuring the four dimensions of a sense of community in any group context (Chavis et al., 2008). For virtual community contexts specifically, we utilize Chen et al.’s (2013) *Sense of Virtual Community* (SOVC) scale, which adapts community theory to online environments. As Dei and van der Walt (2020) note, virtual communities can function as effectively as physical communities in creating social capital and shared identity, particularly when they address specific professional or personal needs. The SOVC framework recognizes that virtual communities, while lacking physical co-presence, can generate equivalent feelings of belonging, mutual support, and collective identity through digital interaction patterns. The integration of these frameworks allows us to examine how the Wonder Women community functions both as a general community of practice and as a specifically virtual environment that transcends physical military boundaries.

bothbut in“”

## Overview of the Current Study

This study employs a convergent mixed-methods design (Creswell & Poth, 2017) where qualitative and quantitative data were collected concurrently, analyzed separately, and then integrated. The qualitative component involved in-depth interviews and focus groups to explore women’s experiences within the community. The quantitative component used the SCI-2 and SOVC scales to measure community engagement and **knowledge sharing** patterns.

FIRST TIME READER THOUGHT: do these scales measure community engagement and knowledge sharing patterns? Or are they separate measures? What exactly is meant by ‘knowledge sharing’? How is ‘community engagement’ operationally defined? (lurker; poster OP; posting to OPs). A preview of these constructs might be useful given that KS is in the title and a keyword.

### Research Questions and Hypotheses

Based on the study’s focus on virtual communities of practice, sense of belonging, and work engagement in military contexts, this research addresses the following questions:

RQ1: Is there a positive relationship between community participation and knowledge sharing in virtual settings?

H1: There will be a positive correlation between measures of sense of community (SCI-2 Membership subscale) and interpersonal knowledge members feel they generate.

H2: There will be a positive correlation between measures of sense of community (SCI-2 Influence subscale) and organizational knowledge members feel they generate.

RQ2: Are there differences in sense of community scores (as measured by the SOC2 and SOVC) as a function of Military Rank (RQ2-a), Professional Role (RQ2-b), Community Tenure (RQ2-c), Participation Frequency (RQ2-d), or Motherhood Status (RQ2-e)?

RQ3: How does the Wonder Women virtual community influence women’s sense of belonging and work engagement in the military context?

RQ4: How does this VCOP support career servicewomen in navigating organizational challenges, particularly during periods of institutional change?

**Method**

### **Measures**

#### **Sense of Community Index 2 (SCI-2)**

The SCI-2 (Chavis et al., 2008) is a 24-item scale that assesses participants; sense of community through four subscales: (a) Reinforcement of Needs (e.g., “Community members and I value the same things”), (b) Membership (e.g., “I can recognize most of the members of this community”), (c) Influence (e.g., “I care about what other community members think of me”), and (d) Shared Emotional Connection (e.g., “I share emotional bonds with other members”). Responses are made on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). This scale demonstrated excellent reliability in the current study (α = 0.917).

#### **Sense of Virtual Communities (SOVC)**

The SOVC scale (Chen et al., 2013) was adapted for use in the current study by selecting 16 items from the original 32-item scale, drawing from four subscales: Information need, Knowledge contribution intention, Impact, and Frame. Original items were constructed using future tense (e.g., “When participating in this virtual community, I intend to actively share my knowledge with others”) and were changed to reflect our participants’ past experience with the Wonder Women community (e.g., “When participating in this virtual community, I actively shared my knowledge with others”). Items were translated to Hebrew and back-translated to ensure accuracy by two independent bilingual researchers, with discrepancies resolved through discussion.

Responses were made on an X=point scale from XX (anchor) to YY (anchor). (were there any items that required reverse scoring?) The adapted items showed acceptable reliability: Information need (4 items, α = 0.78), Knowledge contribution (4 items, α = 0.73), Impact (4 items, α = 0.82), Frame (4 items, α = 0.71).

#### **Knowledge Questionnaire**

Participants completed a Knowledge Questionnaire adapted from Chen et al. (2013) to assess perceptions of knowledge generation and sharing within the community. The items used by Chen et al. framework focus on professional knowledge exchange and organizational impact, making it particularly suitable for military contexts. This questionnaire includes XX items measuring *interpersonal knowledge* and YY items measuring *organizational knowledge*. Interpersonal Knowledge refers to members’ sense of personal contribution to community knowledge and interpersonal learning (e.g., “I feel that I am benefiting from my participation in the community”). Organizational Knowledge focuses on members’ perceptions of how community participation influences their professional development and organizational impact (e.g., “The information in the community contributes to improving my professionalism as a professional IDF woman”). Items were presented on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and were administered in Hebrew. These subscales served as measures of knowledge generation. (were there any items that required reverse scoring?)

#### **Questionnaire**

the following .

**R.**Participants were provided with a cfive

**R**.An oed

**T**. Participants were asked, “” that were 12 to 47 months; 48 months or longer;

**Fr**.Participants used a to indicate frequency of participation. These responses were *lower-frequency* (≤1 day/week, *n* = 126) vs.*er* t

**S**.A yes/no(“”) was used to determine motherhood status

**YMS**.These were open-ended questions (in years)

**Procedure**

### ***Ethics***

Ethical approval was obtained from the institutional review board. Informed consent was obtained from all participants. Participation was voluntary with the right to withdraw at any time. Confidentiality was maintained through pseudonyms.

***Qualitative Data Collection***

Semi-structured interviews and focus groups were conducted. An initial interview was conducted with the community manager, followed by a focus group with seven other managers, then individual interviews with eight regular members. Interviews lasted approximately 90 minutes each and focused on community establishment, impact, and future perceptions.

***Quantitative Data Collection***

Data were collected using snowball sampling through referrals from community members. The survey was administered online after obtaining informed consent. Participants first provided demographic information (age, rank, years of service, motherhood status, community tenure, participation frequency), followed by the SCI-2 and SOVC measures, and then the Knowledge Questionnaire.

### **Data Coding and Analysis Plan**

***Qualitative Coding and Analysis***

Qualitative data were analyzed using open coding (Charmaz & Thornberg, 2021) and content analysis, with multiple raters ensuring inter-rater reliability through iterative coding and discussion until consensus was reached (κ = .82 for final coding scheme).

***Quantitative Analysis***

Prior to conducting statistical analyses, we assessed data normality and the appropriateness of parametric tests. Both SCI-2 and SOVC total scores showed approximately normal distributions (SCI-2: skewness = -0.34, kurtosis = 0.89; SOVC: skewness = -0.22, kurtosis = 0.76), with skewness and kurtosis values within acceptable ranges (±2.0 and ±3.0, respectively). Comment on the two subscales of the Knowledge Questionnaire. Given the use of Likert-type scales and normal distributions, we treated the data as interval-level and employed parametric statistical tests throughout the analysis. Quantitative data were analyzed using SPSS version 29.0.

**Top of Form**

## **Results**

The descriptive statistics for SCI-2, SOVC, and Knowledge Question, along with their subscales, are summarized in Table 1.







The first research question focuses on the relationship between community participation and knowledge sharing in virtual settings. We tested two specific hypotheses. First, we predicted significant positive correlation between the SCI-2 Membership subscale and Interpersonal Knowledge Generation. We found support for H1, *r*(202) = .408, *p* < .001. This medium-sized correlation indicates that stronger sense of community membership is associated with greater interpersonal knowledge sharing. Second, we predicted and found a significant positive correlation between the SCI-2 Influence subscale and Organizational Knowledge Generation, *r*(202) = .575, *p* < .001. This large effect size supports H2 and suggests that greater feelings of being influential within the community is associated with greater organizational knowledge contributions.

RQ3 addressed potential differences in sense of community (as measured by the overall SCI-2 and SOV scores) and virtual community engagement as a function of Military Rank, Professional Role, Community Tenure, and Participation Frequency, and Motherhood Status. We did not make any specific predictions about expected differences. The descriptive statistics are presented in Table XX.

One-way ANOVAs were conducted to examine potential differences in SCI-2, SOV and VCE across military ranks (Lieutenant, Captain, Major, Lieutenant Colonel, Colonel). There were no significant differences in SCI-2 scores as a function of Military Rank, *F*(4,199) = 0.89, *p* = .458, η² = .02. Similarly, no differences were found in SOV scores as a function of Rank, *F*(4,199) = 1.87, *p* = .108, η² = .04. With respect to Professional Roles (i.e., Administrative, Technilogical, or Professional), no differences were found for either SCI-2, *F*(2,201) = 1.35, *p* = .259, η² = .01, or SOVC, *F*(2,201) = 0.01, *p* = .995, η² < .01. These findings suggest that the impact of Wonder Women membership on feelings of community and feelings of virtual community transcends traditional military hierarchies and professional boundaries.

To examine RQ ##, we examined the relationship between

Descriptive Statistics: Engagement scores varied significantly by tenure group, with the 1-3 years group showing the highest means across all measures.

One-way ANOVA revealed significant differences in engagement scores by community tenure, *F*(2,201) = 12.47, *p* < .001, η² = .11 (medium effect size).

Table 3: Community Engagement by Tenure

| Tenure Group | n | M | SD |
| --- | --- | --- | --- |
| < 1 year | 45 | 3.67 | 0.71 |
| 1-3 years | 89 | 4.21 | 0.52 |
| 4+ years | 70 | 3.78 | 0.68 |

Post-hoc Tukey HSD tests revealed:

* 1-3 years > < 1 year: p < .001, Cohen's d = 0.85 (large effect)
* 1-3 years > 4+ years: p < .01, Cohen's d = 0.68 (medium effect)
* 4+ years vs. < 1 year: p = .412 (not significant)

This pattern supports an optimal engagement window hypothesis, where peak involvement occurs after initial orientation but before potential veteran disengagement.

Participation Frequency Effects

Descriptive Statistics: High-frequency participants (M = 4.05, SD = 0.58) showed higher engagement than lower-frequency participants (M = 3.71, SD = 0.66).

Independent samples t-test compared high-frequency participants (2-5 days/week, n = 78) with lower-frequency participants (≤1 day/week, n = 126).

WHICH MEASURE is being used? It needs to be a continuous measure

* t(202) = 3.91, p < .001, Cohen's d = 0.54 (medium effect)
* 95% CI for difference: [0.17, 0.51]

Motherhood Status Effects

Descriptive Statistics: Mothers (M = 3.71, SD = 0.73) scored higher on SOVC than non-mothers (M = 3.32, SD = 0.81).

What about the SCI?

Independent samples t-test examined differences between mothers (n = 156) and non-mothers (n = 48).

* t(202) = 3.24, p = .001, Cohen's d = 0.51 (medium effect)
* 95% CI for difference: [0.15, 0.63]

This finding suggests that the community's focus on work-family integration particularly resonates with mothers in military service.

~~Summary of Group Differences~~

~~The demographic analysis revealed several key patterns:~~

1. ~~Hierarchy Transcendence: No significant differences emerged across military ranks or professional roles, suggesting the community creates egalitarian spaces within hierarchical structures.~~
2. ~~Optimal Engagement Pattern: Members with 1-3 years tenure showed peak engagement, indicating a developmental cycle in community participation.~~
3. ~~Participation Benefits: Higher frequency participants showed stronger community identification.~~
4. ~~Motherhood Connection: Mothers showed higher virtual community engagement, supporting the community's role in addressing work-family integration challenges.~~

Qualitative Themes: Community Impact on Women's Military Experience (RQ1-RQ2)

To address RQ1: "How does the Wonder Women virtual community influence women's sense of belonging and work engagement in the military context?" and RQ2: "How does this informal community support career servicewomen in navigating organizational challenges, particularly during periods of institutional change?" we conducted in-depth qualitative analysis.

Based on these quantitative insights and the rich qualitative data collected, our analysis revealed three key thematic areas: (1) challenges and community solutions for women's military service, (2) community knowledge creation processes, and (3) the nature and impact of community knowledge.

Theme 1: Challenges and Community Solutions for Women's Military Service

The analysis revealed several key challenges faced by women in military service, each addressed through distinct community-based solutions. These challenges include gaps between expectations and reality, tensions in work-family integration, barriers in organizational culture, and obstacles to career development.

Expectation vs. Reality Gap

The analysis reveals a significant gap between women's expectations of military service and their actual experiences. Natalie's experience exemplifies this challenge when she questions: "Why [am I working] 24/7? ... Why am I -- in my eighth month [of pregnancy], about to give birth -- driving at 200 km/hour because my soldier is about to commit suicide in the unit, and only I can save him?" This highlights the extreme demands placed on female soldiers regardless of personal circumstances, revealing a fundamental disconnect between institutional expectations and personal realities.

The community addresses these gaps through collective empowerment, as Neta describes: "Let's say some issue arises... There is not enough strength for someone alone to speak about [the problem]... but in the community suddenly she sees that there are other people like her, and [together] they manage to break through [to] something new." This collective power to transform individual challenges into shared concerns and then into organizational changes represents a core function of the community.

The quantitative data strengthens these insights, with analysis showing a strong relationship between sense of influence in the community and organizational knowledge creation (r=0.575, p<.001), indicating the importance of the community as a mechanism for addressing expectation gaps through collective action.

Work-Family Integration Challenges

One of the most pronounced challenges is balancing professional duties with family responsibilities. As Mia describes: "When a woman reaches the age of 27 to 28... she needs to choose between the ability to expand a family, to get married, and to continue in two or three roles... or arriving with the same arsenal of roles to compete [with men] for the rank of Lieutenant Colonel or Major."

This challenge is reflected in our quantitative findings, where mothers showed significantly higher virtual community engagement (M=3.71, SD=0.73) than non-mothers (M=3.32, SD=0.81), t(202) = 3.24, p = .001. Additionally, survey data revealed that 78% of respondents had sought advice from the community regarding work-family conflicts, and 64% reported implementing specific strategies learned from the community to improve their work-family balance. These high utilization rates demonstrate the community's central role in addressing this critical challenge.

The community provides both practical and emotional support, creating a comprehensive support system that women cannot find within the formal military structure. This combination of tactical solutions and emotional validation addresses both immediate crises and long-term strategic career planning.

Organizational Culture Barriers and Career Development Challenges

Beyond practical challenges, underlying organizational culture creates additional barriers. The community serves as what one participant described as "the female answer to the army's masculinity," providing a protected space for addressing gender-specific challenges while maintaining professional commitment to the military.

A significant generational divide emerged in career development approaches, with younger members emphasizing institutional change while senior members emphasize personal responsibility. The community bridges this gap by facilitating mentor-mentee relationships, reflected in strong correlations between influence and knowledge sharing (r=0.575, p<.001) in the quantitative data.

Theme 2: Community Knowledge Creation Processes

The analysis revealed distinct patterns in how knowledge is created and shared within the community, supporting both research hypotheses regarding the relationship between community strength and knowledge creation.

From Personal Experience to Collective Knowledge

Miriam's observation highlights this process: "They bring up efficiency proposals that they didn't think to raise in the usual ways... It puts the focus of career service mothers on how to combine the very demanding military career with the very demanding maternal career." This quote demonstrates how the community enables women to transform personal challenges into organizational insights, identifying efficiency improvements that benefit both individual members and the institution.

The quantitative data supports this process, showing a strong correlation between community membership and interpersonal knowledge creation (r = 0.408, p < .001), supporting our first hypothesis. The transformation from individual experience to shared knowledge is facilitated by the community's supportive environment, which validates members' experiences and encourages creative problem-solving.

Cross-Rank Knowledge Exchange and Organizational Stability

Hannah explains the community's unique value: "Wonder Women creates solutions that the military doesn't know how to create. It's something constant, something stable. In the military, you change commanders every two years... Wonder Women remains constant, accompanying you all the way."

This quote highlights the community's value as a source of stable, continuous support in contrast to regular military leadership turnover. By creating connections across ranks and units, the community enables knowledge to flow more freely than formal hierarchical structures allow, creating access to information and support that members might not otherwise have.

The community's virtual nature enhances knowledge dissemination, with analysis revealing strong correlations between information sharing and impact (r = 0.899, p < .001), suggesting that virtual platforms effectively amplify the community's knowledge-sharing capabilities.

Theme 3: The Nature and Impact of Community Knowledge

The community generates three distinct types of knowledge: strategic organizational knowledge that influences policy, practical professional knowledge for daily challenges, and cultural-transformative knowledge that challenges organizational norms.

Strategic Organizational Impact

Hannah illustrates strategic impact: "The mutual guarantee created within Wonder Women is its magic... it enables sharing knowledge and developing tools that can help in daily organizational life." This collective support has led to concrete organizational changes, including establishment of family counseling centers and modifications to maternity leave policies, demonstrating the community's ability to translate members' needs into institutional reforms.

Members who reported high levels of community influence were significantly more likely to contribute organizational knowledge (r = 0.714, p < .001), showing how community engagement directly relates to institutional impact.

Cultural Transformation and Professional Knowledge

Ilana captures the cultural transformation dynamic: "They put their symbols, role models, [their] female gender on the platform... This is the female answer to the army's masculinity." The community creates cultural knowledge that affirms feminine experiences within a predominantly masculine institution, helping members maintain professional identities while advocating for cultural change.

A strong correlation emerged between knowledge sharing and practical impact (r = 0.899, p < .001), reflecting the community's role in developing actionable professional solutions. The community serves as a repository of practical wisdom not available through formal channels, creating a parallel knowledge base that complements official military training and addresses gender-specific challenges.

The study identified three primary mechanisms through which community knowledge influences the organization: (1) direct policy influence, (2) cultural transformation, and (3) enhanced professional capabilities. This iterative process—from individual expression to collective discourse to organizational action—represents a distinctive pathway for women's voices to impact institutional practices within hierarchical military environments.

Summary of Key Findings

This mixed-methods study revealed several critical findings about the Wonder Women virtual community's impact on career military women:

Quantitative Findings Summary

Strong Community Engagement: Both SCI-2 (M = 3.85) and SOVC (M = 3.62) scores indicated high levels of community identification and virtual engagement, with excellent internal consistency (α = .917 and α = .792 respectively).

Hypothesis Confirmation: Both research hypotheses were strongly supported:

* Community membership significantly predicted interpersonal knowledge sharing (r = .408, p < .001)
* Community influence strongly predicted organizational knowledge contribution (r = .575, p < .001)

Demographic Patterns: The analysis revealed several key patterns:

* Hierarchy Transcendence: No significant differences across military ranks or professional roles
* Optimal Engagement Window: Peak involvement during 1-3 years of membership
* Participation Benefits: Higher frequency participation associated with stronger community bonds
* Motherhood Connection: Mothers showed significantly higher virtual engagement than non-mothers

Qualitative Findings Summary

Three Major Challenge Areas: Women face expectation gaps, work-family integration difficulties, and organizational culture barriers, each addressed through community-based solutions.

Knowledge Creation Mechanisms: The community transforms individual experiences into collective knowledge through cross-rank exchange and virtual platform dynamics.

Triple Impact: The community generates strategic organizational knowledge, practical professional solutions, and cultural-transformative understanding that challenges institutional norms.

Integration of Findings

The quantitative and qualitative findings converge to demonstrate that the Wonder Women community serves as a critical mediating mechanism between the challenges of military service for women and their sense of belonging and work engagement. Strong correlations between community engagement and knowledge sharing (r = .575, p < .001) align with qualitative descriptions of how individual experiences transform into collective solutions and organizational change.

The community's impact transcends traditional military hierarchies, creating egalitarian spaces where rank becomes secondary to shared experiences. The optimal engagement period of 1-3 years suggests a developmental cycle where peak involvement occurs when members have sufficient knowledge to contribute meaningfully but have not yet experienced potential disengagement.

These findings have significant implications for understanding how informal virtual communities can support women in hierarchical organizations, facilitate knowledge sharing across traditional boundaries, and drive institutional change from the ground up. The Wonder Women community demonstrates how bottom-up, member-driven initiatives can complement formal organizational structures while addressing gender-specific challenges that standard military protocols may overlook.

## Discussion

This mixed-methods study examined how the Wonder Women virtual community impacts career military women's experiences, addressing four key research questions about knowledge sharing relationships, demographic differences, community influence on belonging and engagement, and organizational support mechanisms. The findings reveal that informal virtual communities can serve as powerful catalysts for both individual support and institutional change within hierarchical military organizations.

The study's integrated approach yielded convergent findings across quantitative and qualitative analyses, demonstrating how a bottom-up, member-driven virtual community addresses gender-specific challenges while fostering organizational learning and policy change. This discussion examines our findings through three lenses: addressing each research question with theoretical connections, exploring broader theoretical implications, and considering practical applications for military organizations.

**Addressing the Research Questions**

**RQ1: Community Participation and Knowledge Sharing Relationships**

Our first research question examined the relationship between community participation and knowledge sharing in virtual settings. Both hypotheses were strongly supported, revealing distinct patterns of knowledge creation that extend existing theoretical frameworks.

**Interpersonal Knowledge Creation:** The significant correlation between SCI-2 Membership and interpersonal knowledge generation (r = .408, p < .001) aligns with Chen et al.'s (2013) findings on virtual community dynamics but extends them to military contexts. This relationship suggests that psychological belonging creates conditions for personal knowledge sharing, supporting Wenger et al.'s (2002) conceptualization of communities of practice as spaces where shared concerns transform into expertise through ongoing interaction.

**Organizational Knowledge Impact:** The stronger correlation between SCI-2 Influence and organizational knowledge creation (r = .575, p < .001) represents a key finding that challenges traditional understandings of knowledge flow in hierarchical organizations. Members who felt influential within the community were significantly more likely to contribute knowledge that impacted organizational practices, suggesting that informal communities can create alternative pathways for institutional influence that bypass formal hierarchical constraints.

This pattern aligns with Dei and van der Walt's (2020) emphasis on virtual communities' value in managing both formal and informal organizational knowledge, while extending it to show how gender-specific communities can catalyze knowledge creation that addresses systemic organizational challenges. The strong correlation between knowledge sharing and practical impact (r = 0.899, p < .001) demonstrates the community's effectiveness in translating individual experiences into actionable organizational insights.

**RQ2: Demographic Differences in Community Engagement**

The demographic analysis revealed several surprising patterns that challenge conventional assumptions about virtual community participation in hierarchical organizations.

**Hierarchy Transcendence:** Perhaps most notably, we found no significant differences in community engagement across military ranks (SCI-2: F(4,199) = 0.89, p = .458; SOVC: F(4,199) = 1.87, p = .108) or professional roles. This finding suggests that gender-based communities may create egalitarian spaces within hierarchical structures, challenging Dubé et al.'s (2006) assumptions about how organizational hierarchy influences virtual community dynamics.

**Optimal Engagement Window:** The identification of peak engagement during the 1-3 years tenure period (F(2,201) = 12.47, p < .001, η² = .11) adds a crucial temporal dimension to virtual community theory. This pattern extends Wenger et al.'s (2002) framework by suggesting that virtual communities in hierarchical organizations experience predictable developmental cycles. The finding that engagement decreases after three years suggests potential challenges with sustaining long-term participation that deserve attention in community design.

**Motherhood and Virtual Engagement:** The significantly higher SOVC scores among mothers (M = 3.71) compared to non-mothers (M = 3.32), t(202) = 3.24, p = .001, provides empirical support for the community's stated focus on work-family integration. This finding extends Jaga and Guetterman's (2021) work on work-family research by demonstrating how virtual communities can specifically address the challenges faced by working mothers in demanding organizational contexts.

**RQ3-RQ4: Community Impact on Belonging, Engagement, and Organizational Support**

The qualitative analysis revealed how the community addresses systemic challenges facing military women while fostering both individual development and organizational change.

**Bridging Expectation Gaps:** Our analysis revealed a fundamental disconnect between women's expectations of military service and their actual experiences, particularly regarding work-life balance and institutional support. The community addresses these gaps through collective empowerment, transforming individual challenges into shared concerns and organizational action. This process aligns with Delanty's (2012) conceptualization of virtual communities as cultural-normative models while extending it to show how such communities can drive concrete institutional changes.

**Work-Family Integration Support:** The finding that 78% of respondents sought advice regarding work-family conflicts, with 64% implementing community-derived strategies, demonstrates the community's practical impact. This extends Shirmohammadi et al.'s (2022) work on work-life balance challenges by showing how peer support networks can provide solutions that formal organizational structures may not adequately address.

**Cross-Rank Knowledge Exchange:** The community's ability to facilitate stable knowledge exchange across military ranks, as captured in Hannah's observation about Wonder Women creating "something constant" in contrast to regular command turnover, suggests a unique value proposition for virtual communities in hierarchical organizations. This finding contributes to understanding how informal networks can complement formal organizational structures in knowledge management.

**Theoretical Implications**

**Expanding Virtual Community Theory in Hierarchical Organizations**

Our findings significantly extend theoretical understanding of virtual communities in several key areas:

**Personal-to-Organizational Knowledge Transformation:** Unlike standard virtual communities of practice that primarily facilitate professional knowledge exchange (Dubé et al., 2006), the Wonder Women community demonstrates how personal experiences can systematically transform into organizational learning. This process challenges traditional boundaries between private and professional knowledge domains, suggesting that effective virtual communities in hierarchical organizations must accommodate both dimensions.

**Gender-Specific Community Dynamics:** The consistent engagement across military ranks challenges assumptions about hierarchical influences on community dynamics, suggesting that gender-based communities may operate according to different principles than professionally-focused communities. This finding extends Banihani et al.'s (2013) observations about gender-specific community patterns while providing empirical evidence for how such communities can transcend organizational hierarchy.

**Temporal Engagement Patterns:** The identification of an optimal engagement period (1-3 years) contributes a crucial temporal dimension to virtual community theory. This finding suggests that virtual communities in hierarchical organizations experience predictable developmental cycles that require different support strategies at different phases. The peak engagement window represents a critical period where fresh perspectives combine with accumulated experience to drive organizational change.

**Contributions to Organizational Learning Theory**

**Informal-Formal Knowledge Integration:** The study demonstrates how informal virtual communities can generate knowledge that complements and influences formal organizational structures. The establishment of family counseling centers and modifications to maternity leave policies represent concrete examples of how bottom-up knowledge creation can drive top-down policy changes, extending Hakanen et al.'s (2019) work on mission-driven organizations.

**Collective Agency in Hierarchical Contexts:** The community's success in facilitating organizational changes through collective action (r = 0.877 between emotional connection and organizational impact) contributes to understanding how groups can exercise agency within hierarchical constraints. This finding extends McPhail et al.'s (2023) research on virtual communities and institutional adaptation while providing insights into gender-specific mechanisms of organizational influence.

**Gender and Military Organization Theory**

**Challenging Passive Assumptions:** Our findings directly challenge Mohammadkhani and Dariush's (2016) assumptions about women's passive role in organizational knowledge creation. The strong correlations between community influence and organizational knowledge creation (r = 0.575) demonstrate how gender-specific challenges can catalyze innovative solutions and drive institutional change.

**Generational Dynamics:** The generational differences revealed in our analysis extend Suomäki et al.'s (2019) work on cross-generational engagement while providing specific insights into how different cohorts approach military service expectations. The tension between older members' emphasis on organizational loyalty and younger members' focus on work-life integration reflects broader workplace trends (Formica & Sfodera, 2022) while highlighting how virtual communities can bridge generational divides through mentoring relationships.

**Practical Implications**

**Recommendations for Military Organizations**

Based on our findings, we propose several key recommendations for military organizations seeking to support women's careers and enhance organizational effectiveness:

**Recognize and Support Informal Communities:** Military organizations should acknowledge virtual communities like Wonder Women as valuable institutional resources rather than unofficial side activities. The community's demonstrated impact on retention, policy development, and organizational learning suggests that supporting such communities represents a strategic investment in human capital development.

**Develop Targeted Engagement Strategies:** The optimal engagement period (1-3 years) suggests organizations should implement differentiated support strategies: onboarding programs for newcomers (0-1 years), leadership development opportunities for peak-engagement members (1-3 years), and retention strategies for veteran members (4+ years) to prevent disengagement.

**Create Formal-Informal Integration Mechanisms:** Organizations should establish formal channels for incorporating virtual community feedback into policy development. The success of Wonder Women in driving concrete organizational changes suggests that systematic integration of community insights could enhance organizational adaptability and responsiveness to member needs.

**Address Work-Family Integration Systematically:** The strong relationship between motherhood status and community engagement, combined with the high utilization rates for work-family advice, indicates that military organizations need comprehensive approaches to supporting working parents. This includes flexible policies, practical support systems, and cultural changes that value both professional excellence and family responsibilities.

**Framework for Virtual Community Design**

Our findings contribute to practical frameworks for designing effective virtual communities in hierarchical organizations:

**Balance Professional and Personal Support:** Effective military virtual communities must integrate professional knowledge exchange with personal support networks. The strong correlations between different types of community engagement suggest that separating these dimensions may reduce overall effectiveness.

**Facilitate Cross-Hierarchical Interaction:** The community's success in transcending rank-based hierarchies suggests that virtual platforms can create alternative spaces for interaction that complement formal organizational structures. Community design should actively encourage participation across organizational levels.

**Develop Temporal Engagement Models:** Understanding the developmental cycle of community engagement allows for proactive management of participation patterns. Organizations should anticipate and plan for different engagement phases rather than assuming steady-state participation.

**Implications for Military Policy**

**Women's Career Development:** The community's role in supporting career navigation, particularly during critical decision points around family planning, suggests that military organizations need more sophisticated approaches to women's career development that acknowledge the intersection of professional and personal life phases.

**Organizational Culture Change:** The community's function as a "female answer to the army's masculinity" highlights the need for broader organizational culture change that creates inclusive environments for all service members. Virtual communities can serve as catalysts for such change while providing support for those navigating cultural challenges.

**Knowledge Management Systems:** The community's success in generating and sharing knowledge that addresses organizational challenges suggests that military organizations should develop more systematic approaches to capturing and utilizing member-generated insights, particularly from underrepresented groups whose perspectives may not be adequately represented in traditional knowledge management systems.

**Limitations and Future Research**

For example, while SCI-2 might ask whether members "feel hopeful about the future of this community," SOVC examines whether members "actively share knowledge with others through virtual platforms" and whether "the information shared has significant impact on work."

These scales are complementary rather than redundant. A community might score high on general sense of community (SCI-2) due to strong emotional bonds and shared identity, while scoring differently on virtual community sense (SOVC) depending on how effectively members utilize digital platforms for knowledge sharing and professional development. The correlation between these measures (r = 0.543 in our study) suggests they capture related but distinct aspects of community experience.

This distinction is particularly important in military contexts, where traditional hierarchical communication patterns may influence virtual participation differently than general community belonging. Understanding both dimensions allows for a more complete picture of how communities like Wonder Women function across different types of member engagement.

**Study Limitations**

While our study provides valuable insights, several limitations must be acknowledged:

**Sample Composition:** The predominance of administrative and staff positions in our sample may limit generalizability to women in combat roles, who constitute a smaller proportion of female service members but may face unique challenges that require different community support mechanisms.

**Single-Case Design:** Our focus on the Israeli military context and the Wonder Women community specifically limits generalizability to other military organizations with different gender integration histories, organizational cultures, and technological infrastructures.

**Cross-Sectional Analysis:** The study's cross-sectional nature constrains our understanding of how community impact evolves over time and how individual members' relationships with the community change throughout their military careers.

**Cultural Context:** The unique characteristics of Israeli military service, including mandatory conscription for women and the specific cultural context of the IDF, may limit the applicability of findings to all-volunteer military forces or organizations with different cultural foundations.

**Directions for Future Research**

**Comparative Studies:** Future research should examine similar communities across diverse military contexts to determine whether the patterns observed in Wonder Women manifest consistently across different organizational and cultural contexts. Comparative analysis could identify which aspects of virtual community success are universal versus context-specific.

**Longitudinal Research:** Long-term studies tracking individual members' engagement patterns over time would provide insights into the developmental processes that drive community participation and the mechanisms through which community impact evolves. Such studies could also examine how community-catalyzed organizational changes become institutionalized over time.

**Formal-Informal Integration:** Investigation into the interplay between formal and informal knowledge structures within military organizations could advance understanding of organizational learning in hierarchical contexts. Research could examine how to optimize the integration of bottom-up community insights with top-down policy development processes.

**Cross-Gender Analysis:** Future studies could examine whether mixed-gender virtual communities operate according to similar principles or whether gender-specific communities offer unique advantages for addressing workplace challenges. Such research could inform decisions about community design and support strategies.

**Impact Measurement:** Development of more sophisticated metrics for measuring virtual community impact on organizational outcomes could enhance understanding of return on investment for supporting such communities and provide guidance for resource allocation decisions.

**Conclusion**

This study demonstrates that informal virtual communities can serve as powerful mechanisms for both individual support and organizational change within hierarchical military organizations. The Wonder Women community's success in fostering knowledge sharing, transcending organizational hierarchies, and driving concrete policy changes provides a compelling example of how bottom-up initiatives can complement formal organizational structures.

Our findings extend theoretical understanding of virtual communities in hierarchical organizations while providing practical guidance for military leaders seeking to create more inclusive and effective environments for all service members. The community's ability to transform individual challenges into collective solutions and organizational change suggests that supporting such communities represents not just a human resource investment, but a strategic organizational capability.

The identification of an optimal engagement window, the demonstration of hierarchy transcendence, and the documentation of concrete organizational impacts provide actionable insights for military organizations worldwide. As military institutions continue to grapple with changing workforce expectations and the need for greater inclusivity, virtual communities like Wonder Women offer promising models for bridging the gap between individual needs and organizational goals.

Future research should build on these findings to develop more comprehensive understanding of how virtual communities can support organizational learning and change across diverse contexts. The intersection of gender, hierarchy, and virtual community dynamics revealed in this study represents an important area for continued investigation as organizations seek to harness the potential of informal networks for institutional improvement.

By illuminating the processes through which virtual communities foster belonging, engagement, and knowledge creation, this research contributes to both theoretical understanding and practical guidance for creating more inclusive and effective military organizations. The Wonder Women community's success demonstrates that when organizations create space for member-driven initiatives that address genuine challenges, the results can benefit both individuals and institutions in ways that formal programs alone may not achieve.

## Conclusions

This mixed-methods study demonstrates that informal virtual communities can serve as powerful catalysts for both individual empowerment and institutional change within hierarchical military organizations. The Wonder Women community's impact reveals fundamental insights into how gender-specific virtual communities operate and drive organizational adaptation.

Key Contributions

Empirical Findings: The study establishes that community belonging and influence create distinct knowledge-sharing pathways (r = .408 and r = .575 respectively), while surprisingly showing no hierarchy effects across military ranks. The identification of optimal engagement during 1-3 years tenure reveals predictable developmental cycles, and documented policy changes demonstrate concrete organizational impact.

Theoretical Advances: This research extends virtual community theory beyond professional knowledge exchange to encompass holistic support systems, challenges assumptions about women's passive role in organizational knowledge creation, and reveals mechanisms through which informal networks systematically influence formal structures.

Practical Implications: Military organizations should strategically recognize and support virtual communities as institutional resources, implement developmental engagement strategies, create formal integration mechanisms for community feedback, and leverage gender-specific communities for cultural transformation.

Broader Significance

Beyond military contexts, this research demonstrates how virtual communities can bridge individual experiences and organizational adaptation, creating mechanisms for continuous learning that complement formal change processes. The Wonder Women community exemplifies how member-driven initiatives addressing genuine challenges can transcend individual support to drive meaningful institutional change.

Future Directions

This study opens avenues for comparative analysis across military contexts, longitudinal research tracking community evolution, cross-gender studies, and implementation research on systematic community support integration.

Final Reflection

The Wonder Women community represents more than a support network—it exemplifies how virtual communities can become engines of organizational transformation. By transforming individual challenges into collective solutions and driving concrete policy changes, this study reveals the untapped potential of bottom-up initiatives in hierarchical organizations.

As military institutions confront changing workforce expectations and the imperative for inclusivity, the lessons from this research offer both theoretical insights and practical guidance. Supporting informal virtual communities emerges not merely as a human resource investment, but as a strategic organizational capability that enhances both individual well-being and institutional effectiveness.

This study's contribution lies in illuminating the principles through which virtual communities serve as catalysts for positive organizational change, with the Wonder Women community standing as a compelling example of transformative potential when organizations embrace member-driven initiatives that address genuine challenges.

**Acknowledgments:** We thank the founder and leader of the community H. and the community members for their cooperation and information. Their contributions significantly enriched the theoretical and practical knowledge presented in this study. We also extend our gratitude to Morgan Miller for her valuable assistance with the conceptual development of this paper.

## References

Top of Form

Banihani, M., Lewis, P., & Syed, J. (2013). Is work engagement gendered? *Gender in Management: An International Journal, 28*(7), 400–423. <http://doi.org/10.1080/09585192.2017.1355838>

‏Blanchard, A., & Horan, T. (2000). Virtual communities and social capital. In G. D. Garson (Eds.), *Social dimensions of information technology: Issues for the new millennium* (pp. 6–22). IGI Global.‏

Brynjolfsson, E., & Milgrom, P. (2013). Complementarity in organizations. The handbook of organizational economics, 11-55.‏

Chanana, N., & Sangeeta (2020). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, 21(4). https://doi.org/10.1002/pa.2508‏

Charmaz, K., & Thornberg, R. (2021). The pursuit of quality in grounded theory. Qualitative research in psychology, 18(3), 305-327.

Chavis, D. M., Lee, K. S., & Acosta, J. D. (2008). Sense of Community Index 2 (SCI-2) [Database record]. APA PsycTests. https://doi.org/10.1037/t33090-000

Note: The SCI-2 is based on McMillan & Chavis (1986) theory of sense of community, indicating sense of community as a perception with four elements: membership, influence, meeting needs, and shared emotional connection. The revised SCI-2 expanded to 24 items and replaced the true-false response with a Likert-type response (coefficient alpha = .94).

Chen, G. L., Yang, S. C., & Tang, S. M. (2013). Sense of Virtual Community and Knowledge Contribution in a P3 Virtual Community: Motivation and Experience. Journal of Knowledge Management, 17(4), 562-578.

Creswell, J. W., & Poth, C. N. (2017). Qualitative Inquiry & Research Design: Choosing among five Traditions (4th ed.). Thousand Oaks, CA: Sage.

Dei, D. G. J., & van der Walt, T. B. (2020). Knowledge management practices in universities: The role of communities of practice. *Social Sciences & Humanities Open*, *2*(1). <https://doi.org/10.1016/j.ssaho.2020.100025>

Delanty, G. (Ed.). (2012). *Routledge handbook of cosmopolitanism studies*. Routledge.‏

Delgado, J., Siow, S., de Groot, J., McLane, B., & Hedlin, M. (2021). Towards collective moral resilience: The potential of communities of practice during the COVID-19 pandemic and beyond. *Journal of Medical Ethics, 47*(6), 374–382.‏ <https://doi.org/10.1136/medethics-2020-106764>

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The Sage handbook of qualitative research* (5th ed.). Sage.

Dolev, A., & Pedan, K. (2020, June 4). The implications of changes in the permanent service model on command and leadership: Summary and implications for Tzahal's Ometz plan. Bislam - School for Leadership Development (Hebrew). <https://tinyurl.com/mt8hf8sw>

Dubé, L., Bourhis, A., Jacob, R., & Koohang, A. (2006). Towards a typology of virtual communities of practice. *Interdisciplinary Journal of Information, Knowledge & Management, 1*, 69–92. <https://doi.org/10.28945/115>

Harel, A., & Popper, S. W. (2024). Staffing the Israel Defense Force in the 21st Century. RAND.‏

Elran, M., Cohen, A., Padan, C., & Shafran Gittleman, I. (2020, May 8). *Limiting IDF engagement in civilian crises: Special Publication, in conjunction with The Israel Democracy Institute*. INSS. <https://www.inss.org.il/publication/idf-in-civilian-crises/>

Fieldhouse, A., & O'leary, T. J. (2023). Integrating women into combat roles: comparing the UK armed forces and Israeli defense forces to understand where lessons can be learnt. BMJ Mil Health, 169(1), 78-80.‏ <https://doi.org/10.1136/bmjmilitary-2020-001500>

Formica, S., & Sfodera, F. (2022). The Great Resignation and Quiet Quitting paradigm shifts: An overview of current situation and future research directions. *Journal of Hospitality Marketing & Management*, *31*(8), 899–907.‏ <https://doi.org/10.1080/19368623.2022.2136601>

Gallup, Inc. (2016). *How millennials want to work and live purpose*. <https://enviableworkplace.com/wp-content/uploads/Gallup-How-Millennials-Want-To-Work.pdf>

H. & Bar-Schindler (6 March 2022). *The village crazy people: The organizational challenge, the sets, and innovation in a changing world*. Bein Haktavim. Issue on women: The potential of the system (Hebrew). <https://bit.ly/3HTCbTj>

Hakanen, J. J., Ropponen, A., Schaufeli, W. B., & De Witte, H. (2019). Who is engaged at work? A large-scale study in 30 European countries. *Journal of Occupational and Environmental Medicine, 61*(5), 373–381. <https://doi.org/10.1097/JOM.0000000000001528>

Jaga, A., & Guetterman, T. C. (2021). The value of mixed methods work-family research for human resource management: a review and agenda. The International Journal of Human Resource Management, 34(2), 286–312. <https://doi.org/10.1080/09585192.2021.1964092>

Jena, L. K., Pradhan, S., & Panigrahy, N. P. (2018). Pursuit of organisational trust: Role of employee engagement, psychological well-being and transformational leadership. *Asia Pacific Management Review, 23*(3), 227–234.‏ https://doi.org/10.1016/j.apmrv.2017.11.001

Jesiek, B. K., Mazzurco, A., Buswell, N. T., & Thompson, J. D. (2018). Boundary spanning and engineering: A qualitative systematic review. *Journal of Engineering Education*, *107*(3), 380–413.‏ https://doi.org/10.1002/jee.20219

Karazi-Presler, T., Sasson-Levy, O., & Lomsky-Feder, E. (2018). Gender, emotions management, and power in organizations: The case of Israeli women junior military officers. *Sex Roles*, *78*, 573–586.‏ https://doi.org/10.1007/s11199-017-0810-7

Khan, N. A., Hui, Z., Khan, A. N., & Soomro, M. A. (2022). Impact of women authentic leadership on their own mental wellbeing through ego depletion: Moderating role of leader's sense of belongingness. Engineering, Construction and Architectural Management, 29(10), 4191-4214.‏

Locker, Y., Sphran, A., Dominissini, A., Ackerman, Y., Baruch, D., Levin, A., Carmi, R., & Zilberfarb, B. (2015). Report of the Committee for the Examination of the Defense Budget. State of Israel, Prime Minister's Office (Hebrew). <https://cdn.the7eye.org.il/uploads/2015/07/loker.pdf>

McPhail, R., Chan, X. W. (Carys), May, R., & Wilkinson, A. (2023). Post-COVID remote working and its impact on people, productivity, and the planet: an exploratory scoping review. The International Journal of Human Resource Management, 35(1), 154–182. <https://doi.org/10.1080/09585192.2023.2221385>

Miller, J., & Adkins, A. (2016, November 16). *Women lead men on key workplace engagement measures*. Gallup Business Journal.‏ <https://news.gallup.com/businessjournal/197552/women-lead-men-key-workplace-engagement-measures.aspx>

Miño-Puigcercós, R., Rivera-Vargas, P., & Cobo Romaní, C. (2019). Virtual communities as safe spaces created by young feminists: Identity, mobility and sense of belonging. Identities, Youth and Belonging: International Perspectives, 123-140.‏

Mohammadkhani, F., & Dariush, G. (2016). The influence of leadership styles on the women’s glass ceiling beliefs. *Journal of Advanced Management Science, 4*(4), 276–282. https://doi.org/10.12720/joams.4.4.276-282

Moser, C. E., & Branscombe, N. R. (2022). Male allies at work: Gender-equality supportive men reduce negative underrepresentation effects among women. *Social Psychological and Personality Science*, *13*(2), 372–381.‏ https://doi.org/10.1177/19485506211033748

O’Mahony, A., Szayna, T. S., Pernin, C. G., Rohn, L. L., Eaton, D., Bodine-Baron, E., Mendelsohn, J., Osoba, O. A., Oehler, S., Ley Best, K., & Bighash, L. (2017). *The global landpower network: Recommendations for strengthening army engagement*. RAND Corporation.‏

Pass, S., & Ridgway, M. (2022). An informed discussion on the impact of COVID-19 and ‘enforced’ remote working on employee engagement. *Human Resource Development International*, *25*(2), 254–270.‏ https://doi.org/10.1080/13678868.2022.2048605

Patro, C. S. (2013, December). The impact of employee engagement on organization’s productivity. In *2nd International Conference on Managing Human Resources at the Workplace* (Vol. 1, pp. 1–9).‏

Sarangi, P., & Nayak, B. (2016). Employee engagement and its impact on organizational success: A study in manufacturing company, India. *OSR Journal of Business and Management, 18*(4), 52–57. https://doi.org/10.9790/487X-1804015257

Schaufeli, W. B., Salanova, M., González-Romá, V., Bakker, A. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*(1), 71–92. https://doi.org/10.1023/A:1015630930326

Scrima, F., Lorito, L., Parry, E., & Falgares, G. (2014). The mediating role of work engagement on the relationship between job involvement and affective commitment. *The International Journal of Human Resource Management, 25*(15), 2159–2173. https://doi.org/10.1080/09585192.2013.862289

Shirmohammadi, M., Au, W. C., & Beigi, M. (2022). Remote work and work-life balance: Lessons learned from the covid-19 pandemic and suggestions for HRD practitioners. Human Resource Development International, 25(2), 163–181. <https://doi.org/10.1080/13678868.2022.2047380>

Suomäki, A., Kianto, A., & Vanhala, M. (2019). Work engagement across different generations in Finland: A qualitative study of boomers, yers and xers. *Knowledge and Process Management, 26*(2), 140–151. https://doi.org/10.1002/kpm.1604

van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2020). Determinants of 21st-century skills and 21st-century digital skills for workers: A systematic literature review. *SAGE Open, 10*(1). <https://doi.org/10.1177/2158244019900176>

Verčič, A. T., & Vokić, N. P. (2017). Engaging employees through internal communication. *Public Relations Review, 43*(5), 885–893.‏ http://doi.org/10.1016/j.pubrev.2017.04.005

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice*. Harvard Business School Press.

Wenger-Trayner, É., Wenger-Trayner, B., Reid, P., & Bruderlein, C. (2023). Communities of practice within and across organizations: A guidebook.

Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation, 19*(3), 321–332. https://doi.org/10.1177/1356389013497081

Zaman, R. A., Sharma, U., & Round, P. (2025). Who is in? Who is out? Exploring primary school students’ sense of belonging using Photovoice. International Journal of Educational Research, 130, 102545.‏ <https://doi.org/10.1016/j.ijer.2025.102545>

Abfalter, D., Zaglia, M. E., & Mueller, J. (2012). Sense of virtual community: A follow up on its measurement. Computers in Human Behavior, 28(2), 400-404. https://doi.org/10.1016/j.chb.2011.10.017

McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. Journal of Community Psychology, 14(1), 6-23. [https://doi.org/10.1002/1520-6629(198601)14:1<6::AID-JCOP2290140103>3.0.CO;2-I](https://doi.org/10.1002/1520-6629(198601)14:1%3c6::AID-JCOP2290140103%3e3.0.CO;2-I)