Article

Canadian Journal of Occupational Therapy
2016, Vol. 83(2) 72-82
DOI: 10.1177/0008417416635346

Male-to-female transitions: Implications for occupational performance, health, and life satisfaction

Les transitions homme-femme : Conséquences en matière de rendement occupationnel, de santé et de satisfaction face à la vie

Michal Avrech Bar, Tal Jarus, Mineko Wada, Leora Rechtman, and Einav Noy

Key words: Competence; Gender identity; Occupational Performance History Interview; Occupations; Transgender.

Mots clés : Compétence; identité de genre; Occupational Performance History Interview; occupations; transgenre.

Abstract

Background. People who undergo a gender transition process experience changes in different everyday occupations. These changes may impact their health and life satisfaction. **Purpose.** This study examined the difference in the occupational performance history scales (occupational identity, competence, and settings) between male-to-female transgender women and cisgender women and the relation of these scales to health and life satisfaction. **Method.** Twenty-two transgender women and 22 matched cisgender women completed a demographic questionnaire and three reliable measures in this cross-sectional study. Data were analyzed using a two-way analysis of variance and multiple linear regressions. **Findings.** The results indicate lower performance scores for the transgender women. In addition, occupational settings and group membership (transgender and cisgender groups) were found to be predictors of life satisfaction. **Implications.** The present study supports the role of occupational therapy in promoting occupational identity and competence of transgender women and giving special attention to their social and physical environment.

Abrégé

Description. Les personnes qui subissent le processus de changement de genre vivent des changements à travers différentes occupations quotidiennes. Ces changements peuvent avoir des répercussions sur leur santé et leur satisfaction face à la vie. **But.** Cette étude se penchait sur la différence entre les échelles historiques de rendement occupationnel (identité occupationnelle, compétence, et milieux) de femmes transgenres homme-femme et de femmes cisgenres, et sur la relation entre ces échelles, la santé et la satisfaction face à la vie. **Méthodologie.** Vingt-deux femmes transgenres et 22 femmes cisgenres comparables ont rempli un questionnaire démographique et trois mesures fiables dans le cadre de cette étude transversale. Les données ont été analysées à l'aide d'une analyse de la variance à deux facteurs et de régressions linéaires multiples. **Résultats.** Les résultats indiquent de plus faibles scores de rendement pour les femmes transgenres. Par ailleurs, on a constaté que les milieux occupationnels et le groupe d'appartenance (groupes transgenres et cisgenres) étaient des prédicteurs de la satisfaction face à la vie. **Conséquences.** La présente étude appuie le rôle que peut jouer l'ergothérapie en favorisant la construction de l'identité occupationnelle et la compétence des femmes transgenres et en accordant une attention particulière à leur environnement social et physique.

Funding: No funding was received in support of this work.

Corresponding author: Michal Avrech Bar, Department of Occupational Therapy, Sackler Faculty of Medicine, Tel Aviv University, Ramat Aviv, Tel Aviv 69978, Israel. Telephone: 972-3-640-9104. E-mail: michaavr@post.tau.ac.il

In the past two decades, an increasing awareness of transgender people and a general openness to their experiences have highlighted that this population is diverse in terms of culture, age, education, income, geographical location, and ethnicity (Dean et al., 2000; Kenagy & Hsieh, 2005). However, scant research has explored transgender women's occupational performance and its relationship with their health and life satisfaction. This paper examines the difference in the occupational performance history scales (occupational identity, occupational competence, and occupational settings [environment]) between male-to-female (MTF) transgender women and cisgender women (female born) (Schilt & Westbrook, 2009) as well as the relationship between occupational performance history, health, and life satisfaction for both populations.

Background

Sex, gender, and gender identity are usually viewed from the standpoint of biological sex, which distinguishes males and females according to physiological characteristics (Devor, 2004). Gender is the societal and cultural interpretation of sex categories and tends to categorize individuals into the binary groups of men/women and boys/girls. *Gender identity* generally refers to an individuals' identification with one of the binary gender categories but does not always correspond to the gender assigned at birth (Devor, 2004). Those whose gender identities are transitorily or steadily incongruent with the gender that has been assigned to them are called *transgender* people (American Psychiatric Association, 2013). Understandably, transgender people often desire bodies that match the gender with which they identify, as it would socially legitimize their gender identity (Devor, 2004) and better enable them to fulfill the societal roles associated with that gender (Cole, Denny, Eyler, & Samons, 2000; Kaplan et al., 2004). The process of transforming gender is termed *transition* and typically includes cross-dressing, a change of legal identification, psychological and medical counseling, and surgical and medical interventions to change physical sex characteristics (Beagan et al., 2012; Devor, 2004), though not everyone desires or seeks physical interventions to transition. According to the literature, these processes may help transsexual persons to better integrate into society (Kaplan et al., 2004; Michel, Mormont, & Legros, 2001).

Occupational changes experienced by transgender people. A growing body of literature has documented that transgender people's transitions impact their performance of self-care, productivity, and recreational occupations in the Canadian context (Beagan et al., 2012, 2013). Dressing and grooming changes are part of transition, as they are informed by gender identity (Beagan et al., 2013; Goodman, Knotts, & Jackson, 2007). Posttransition persons present themselves physically in a manner that conforms to their felt gender, the gender they know themselves to be (which differs from gender assigned at birth) and the social and cultural norms of femininity or masculinity that are associated with it (Beagan et al., 2012; Doan, 2010).

In addition, an increasing number of studies reveal that transgender people often find it difficult to manage and negotiate their occupational performance at school, work, and home. They may choose to withdraw from university degree programs if they cannot receive degrees with their new names (Beagan et al., 2012), which will limit the choice of their future occupations. Lippa (2001) found that transgender women display feminine inclinations in their performance of productivity occupations even more than cisgender women. It enables them to hide their gender confusion and discomfort from their employers, colleagues, and clients. This is often seen as necessary, because transitioning gender can be considered a transgression and result in transgender people's being discriminated against or even losing their jobs (Beagan et al., 2012; Connell, 2010; Hines, 2010). In a survey completed by 433 transgender people in Ontario, Canada, it was found that while a high percentage of Ontario transgender people have postsecondary education, most of them live below the poverty line (Bauer et al., 2010).

Transgender people may try to hide the discordance between their assigned gender and their gender identity by committing to family occupations because they often emphasize and reflect traditional gender norms (Beagan et al., 2012). However, this can prevent them from disclosing or changing their gender, as they fear themselves and their family members being discriminated against or alienated by others (Beagan et al., 2012; Hines, 2010). If their transgender identity becomes apparent, it can lead to the end of their intimate relationships and have a negative impact on their relationship with their family, especially if they fail to successfully renegotiate their family roles (Beagan et al., 2012).

Gender transitions also impact recreational occupations. Previous research shows that some transgender people actively seek to participate in recreational activities that are congruent with the gender they were assigned at birth to hide their confusion about their gender identity (Beagan et al., 2012; Lippa, 2001). However, others choose not to conform to gender prescriptions for recreation and instead simply follow their own interests, even before they physically change their gender (Grossman, O'Connell, & D'Augelli, 2005).

Life transitions and occupational performance. Life transitions or disruptions to life circumstances change not only the types of occupations in which people engage but also the ways in which they perform those occupations, namely, occupational performance (Blair, 2000; Canadian Association of Occupational Therapists [CAOT], 2002; Polatajko et al., 2007). An extensive amount of occupational therapy literature discusses the influence of various life transitions on occupational performance, including retirement (Jonsson, Josephsson, & Kielhofner, 2001), first-time motherhood (Horne, Corr, & Earle, 2005), or disability (e.g., being in a wheelchair; Buning, Angelo, & Schmeler, 2001).

Kielhofner (2008) contends that transformation is composed of changes of thinking patterns, feelings, and

activities, which typically require a person to adjust his or her occupational identity and lead to changes in occupational competence. Occupational performance history includes occupational identity, occupational competence, and occupational settings (Kielhofner et al., 2004). *Occupational identity* refers to a person's sense of self in relation to occupations, including the identification of one's roles, and *occupational competence* refers to a person's capacity to actualize a desired occupational identity in a way that is satisfying and meets environmental demands. *Occupational settings* refers to the everyday physical and human environments in which the person lives, works, and engages in leisure (Kielhofner et al., 2004).

According to Kielhofner (2008), transformation takes place in three stages: The first two are *exploration*, when people experiment with new occupations and learn about their abilities and preferences, and *competency*, when people begin to build and establish their occupational identity and try to meet the expectations of the occupational environment. At this stage, the focus is on performing occupations consistently and meticulously, which enables individuals to develop new skills and habits that support optimal occupational performance. The last stage is *achievement*, when the person who has undergone the transformation has acquired skills and habits needed to fully participate in all relevant occupations and has developed a solid occupational identity.

Gender transformation is obviously a major life transition and can significantly influence a person's occupational life. Although the literature has placed attention on the impact that the transgender identity has on engagement in occupations, few studies have specifically focused on how it influences transgender women's occupational identity, occupational competence, and occupational settings. Filling this knowledge gap is critical to enable transgender persons who often experience occupational performance issues as part of this process to engage in occupations that are meaningful to them (CAOT, 2002). Thus, the first objective of this study was to examine the differences in occupational performance history (specifically, occupational identity, competence, and settings scales) between transgender women and cisgender women.

Health and life satisfaction of MTF transgender women. The premise that there is a multidirectional relationship among occupation, health, and well-being is foundational to the fields of occupational therapy and occupational science (see American Occupational Therapy Association [AOTA], 2014; CAOT, 2002; Law, Steinwender, & Leclair, 1998; Wilcock, 1998, 2005; Yerxa et al., 1990). However, there is little empirical evidence of that relationship in the literature (Polatajko et al., 2007; Wilcock, 1998).

It is important to investigate this key premise because of its implications for health and well-being, particularly among minority and marginalized populations. Transgender women are one such population. Although there is an increasing acceptance of gender variance and identities in Western societies, transgender youth and adults remain oppressed within those societies (Cole et al., 2000; McGuire, Anderson, Tommey, & Russel, 2010) and are harassed and abused vocally, physically (Doan, 2010; Whittle, 2001), and sexually, particularly in rural areas (Rosenmann & Safir, 2008). In addition, transgender people often find it challenging to meet their health needs particularly if they consider or undergo sex-realignment interventions or surgeries (Beagan et al., 2012; McNeil, Bailey, Ellis, Morton, & Regan 2012; Whittle, Turner, Combs, & Rhodes, 2008). Moreover, the health care system may not address the needs of transgender people (American Psychological Association, 2009; Beagan et al., 2012; Sherbourne Health Centre, 2009) due to lack of knowledge (Beagan et al., 2013). These conditions may impact transgender women's self-esteem and lead to depression, suicide, drugs and alcohol abuse, and prostitution (which poses a health risk by an increasing susceptibility to AIDS; Bauer, Pyne, Caron Francino, & Hammond, 2013; Clements-Nolle, Marx, Guzman, & Kutz, 2001; Cohen-Kettenis, & Gooren, 1999; Lombardi, 2001; Mathy, 2002; Oriel, 2000). Kenagy (2005) claims that transgender people who seek to transition find the process made more difficult because of a lack of medical knowledge, the treatment costs of transitioning, and the isolation and stigma they experience in society. Beagan et al. (2013) interviewed primary care nurses and physicians in Halifax, Nova Scotia, about their experience with transgender health care. Participants reported their concern about inadequate knowledge to provide quality transgender care. This lack of knowledge negatively affects the health and well-being of transgender women.

While increasing evidence shows that gender transition impacts occupational performance, to date, little is known about transgender women's health and satisfaction with life in relation to their occupational performance. Because of the stigma, oppression, and abuse that transgender women often experience, they tend to be obliged to conform to societal expectations of behaviour that are aligned with their assigned gender. In addition, they are likely to be socially isolated or constrained from engaging in desired occupations, which may diminish their health and well-being. Thus, the second objective of this study was to examine whether occupational identity, occupational competence, and occupational settings can predict health and life satisfaction—a component of well-being (Diener, 2000)—of transgender women.

In this study, three hypotheses were tested: (a) There will be a significant difference between transgender and cisgender women in the occupational identity, competence, and settings scales. (b) A significant difference will be found in occupational identity and occupational competence, between the past and the present, in the group of transgender women and the cisgender group. There will be a significant difference between the two groups in the gap between the past and present. The gap will be greater in the group of transgender women. (c) Occupational identity, occupational competence, and occupational settings will predict the health and satisfaction with life of women in both groups.

Method

Study Design

This cross-sectional study used a semi-structured interview and two self-report measures to gather data from two groups, MTF transgender and cisgender women. The variables measured were the occupational performance history scales (occupational identity, occupational competence, and occupational settings), health, and satisfaction with life.

Participants

Forty-four Israeli women participated in the study and belonged to two groups: MTF transgender women (transgender group) and female born (cisgender group). The transgender women were recruited first through advertisement in meeting places and Internet forums of the transgender community (LGBTQ [lesbian, gay, bisexual, transgender, and queer]) and then snowball sampling via recruited participants (word of mouth to potential participants from those who have already participated in the study) as a means to obtain a broader sample. Eligibility criteria for inclusion were women over the age of 21 who were born as males, currently at different stages of the change process for at least a year, and who, according to their own definition, lived and functioned as women in most of their everyday occupations.

The cisgender group was recruited through advertisement and flyers about the study posted in the community. The characteristics of participants who agreed to participate in the study were compared to the women from the transgender group, and if a match was found (in age [± 5 yrs], income [low/average/high], relationship status [single/in a relationship], parenthood [with/without children] and education [secondary/postsecondary]), the cisgender woman was invited to participate in the study. Women with physiological or mental illnesses (based on self-report) were not eligible to participate in the study.

Data Collection

A demographic questionnaire and three reliable and valid measures were used to collect data.

Demographic questionnaire. The demographic questionnaire was developed for the purpose of this study and collected information such as the subject's age, family situation, profession, and any special surgical interventions that she may have received.

The Occupational Performance History Interview (Version 2; OPHI-II). The OPHI-II is a semi-structured interview that explores the client's occupational life history (Kielhofner et al., 2004). The interview is organized into five thematic areas: occupational roles, daily routine, occupational settings, activity/occupational choice, and critical life events. The information obtained during the interview is converted into three rating scales: occupational identity scale, occupational competence scale, and occupational settings (environment) scale. The occupational identity scale measures the degree to which a person has internalized a positive occupational identity (e.g., having values, interests, and confidence; seeing self in various occupational roles; and having an image of the kind of life one wants). The occupational competence scale measures the degree to which a person is able to sustain a pattern of occupational behaviour that is productive and satisfying. The occupational settings (environment) scale measures the impact of the environment on the client's occupational life (Kielhofner et al., 2004).

Each scale includes a number of items that are to be rated from 1 (*extremely deficient occupational functioning*) to 4 (*exceptionally fitting occupational functioning*). The interview's grading is then converted to interval scores, ranging between 0 and 100 (Kielhofner et al., 2004). An additional four scores (ranging between 1 and 4) were calculated based on items presenting past experience and items presenting present perspectives: average past and average present scores. Those scores were calculated only for the occupational identity and the occupational competence scales as the past and present items existed only for those two scales. According to the instructions of the measure, past and present are defined by the interviewee.

The scales of OPHI-II were found to be valid across language and culture when used with the administration manual for an international sample of people with physical or psychiatric disabilities or with no known disabilities (Kielhofner, Mallinson, Forsyth, & Lai, 2001). As a preliminary stage in this study, the OPHI-II was translated into Hebrew using the Vallerand (1989) method with the permission of the authors. Internal consistency reliability (Cronbach's alpha) for the translated version was .87 (good) for the occupational identity scale, .82 (good) for the occupational competence scale, and .80 (good) for the occupational settings (environment) scale.

The Short Form Health Survey Questionnaire (SF-36). The SF-36 is a well-established self-report survey designed to provide a multidimensional representation of health-related issues from the examinee's perspective (Ware & Sherbourne, 1992). The questionnaire involves eight subscales related to physical function, role limitations due to physical health problems, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems, and mental health. These subscales are based on 36 items, which are grouped into two summarized categories, physical health and mental health, as well as a total health grade (Kalantar-Zadeh, Kopple, Block, & Humphreys, 2001). Completion time for the questionnaire ranges from 5 to 10 min, and a total score is obtained ranging from 0 to 100. A higher score indicates a better perception of health (Bouchet, Guillemin, Paul-Dauphin, & Briancon, 2000; Hayes, Morris, Wolfe, & Morgan, 1995). The SF-36 was translated into Hebrew. The psychometric properties of the Hebrew version were good and resembled those reported by researchers in other

countries (Bentur & Epstein, 2001; Lewin-Epstein, Sagiv-Schifter, Shabtal, & Shmueli, 1998).

The Satisfaction With Life Scale (SWLS). The SWLS is a self-report measure that assesses the cognitive component of subjective well-being (SWB). The individual is asked to evaluate his or her satisfaction with life as a whole. The measure contains five statements, in which participants are asked to rate their level of agreement on a 7-point scale (Diener, 2000; Diener, Emmons, Larsen, & Griffin, 1985). All of the items are summed up to provide a final score that ranges from 5 (minimal life satisfaction) to 35 (maximal life satisfaction; Pavot & Diener, 1993). The SWLS was translated into Hebrew and was found as a valid and reliable scale that can be utilized in the Israeli context (Anaby, Jarus, & Zumbo, 2010).

Procedure

After initial conversation with the participants, in which the purpose and procedure of the study were explained to them, a meeting was scheduled at their convenience at a quiet location that facilitated comfortable conversation. After the subject signed a consent form, the OPHI-II interview was conducted, which took approximately 90 min. The interview was recorded with the participant's permission for the purpose of coding the OPHI-II scales. At the end of the interview, the participant was asked to complete two self-report measures and one questionnaire, which lasted about 20 min in total, in the following order: SF-36, SWLS, and the demographic questionnaire. The study received ethics approval from the university ethics committee.

Data Analysis

All statistical analyses were performed with SPSS statistical software (Version 19.0, Windows). The statistical significance was set to $p = .05$.

To test the first hypothesis, a two-way analysis of variance (ANOVA) was performed using a 2 (gender identity group) $\times$ 3 (occupational performance history scales) design with repeated measures on the last factor. Based on previous studies on the psychometric properties of the OPHI (e.g., Lynch & Bridle, 1993), for the second hypothesis we performed two two-way ANOVAs using a 2 (gender identity group) $\times$ 2 (time) design with repeated measures on the last factor. The occupational performance history scales are ordinal but not dichotomous, and they were based on the means of several items for the past and several items for the present. As ANOVA is a relatively robust procedure with respect to violations of the normality assumption, it is often used for ordinal variables (Kirk, 1995). Thus, as there is no non-parametric test that parallels the ANOVA that can test the effect of an independent variable with repeated measures model, we used it here to test the second hypothesis. Post hoc Scheffe tests were performed if ANOVA tests were significant to test for significant differences between the means.

To examine which of the occupational performance history scales (occupational identity, occupational competence, and occupation setting) predicts the health and satisfaction with life of the women in the transgender and cisgender groups, Pearson correlation tests were first conducted. It was intended to investigate the relationship between (a) the occupational performance history scales and health measures, (b) the occupational performance history scales and satisfaction with life, and (c) the health measures and satisfaction with life. In accordance with the results, a multiple linear regression, stepwise, was conducted. All variables that had a significant correlation with health and satisfaction with life were entered.

Findings

Demographic Questionnaire

The demographic analysis of the 44 participants indicated that the sample's ages ranged between 23 and 58 years ($M = 31.99$, $SD = 8.81$). The transgender group comprised 22 self-identified MTF transgender women, ages 23 to 54 years ($M = 32.23$, $SD = 8.9$). All the women in this group took hormones, 77% of them openly shared their transgender identity, and 36% have undergone sex-realignment surgery. All of them lived in the same large metropolitan area where 68% lived in the "big" city and the other 32% lived in the suburbs of that city. Although the participants in this study did not constitute a random sample of all MTFs, they did represent a relatively large and diverse group. The cisgender group comprised 22 women (who were born as females), ages 24 to 58 years ($M = 31.75$, $SD = 8.93$), who were matched to the transgender group according to the following characteristics: age, income (low, 22.7%; average, 36.4%; high, 40.9%), relationship status (73% single), parenthood (77.3% without children), and education (45.5% with secondary and 54.5% with postsecondary education).

OPHI-II Scales

Two-way ANOVA for testing the differences between the two gender identity groups in the three occupational performance history scales (occupational identity, occupational competence, and occupational settings) revealed that the first hypothesis was supported. The gender identity group main effect was significant, $F(1, 42) = 12.4$, $p < .0001$. As well, the data analysis revealed that there was no significant interaction between the occupational performance history scales and gender identity group, $F(2, 84) = 0.93$, $p > .05$. Therefore, the difference between the two gender identity groups whereby the occupational performance history scales scores of the cisgender group were higher than those of the transgender group occurs in each one of the three occupational performance history scales (see Figure 1). Finally, for both groups, no difference was found between the three occupational performance history scales, $F(2, 84) = 0.48$, $p > .05$.

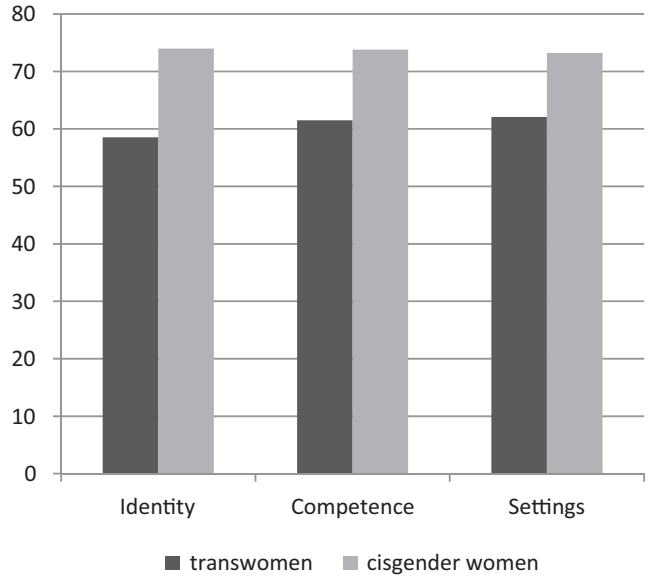

Figure 1. Differences between the two groups in the occupational performance history scales.

Table 1
Differences Between Past and Present on the Occupational Performance History Scales

	Identity		Competence	
Variable	*F*(1, 42)	*p*	*F*(1, 42)	*p*
Time	43.85	.001	28.95	.001
Women's group	30.05	.001	25.87	.001
Time × Women's Group	9.94	.003	21.57	.001

The second hypothesis, which tested for differences between the past and the present in two occupational performance history scales (occupational identity and occupational competence), was analyzed separately for the identity scale and the competence scale. The hypothesis was supported as there were significant differences in both scales between the past compared to the present for both groups of women (see Table 1). The main effect of time, however, was superseded by the significant interaction between the time frame (past and present) and the gender identity group for both occupational performance history scales (see Table 1). Therefore, the difference between the past and the present in these occupational performance history scales was different between the two groups (see Figure 2).

Post hoc analysis of the occupational identity scale revealed a significant difference between the past and present components in both groups of women as well as significant differences between the groups in both time frames. However, based on the analysis seen in Figure 2, it could be inferred that the gap between the past and the present was greater for the transgender group than for the cisgender group, indicating a greater improvement for that group from past to present. In contrast, for the occupational competence scale, significant

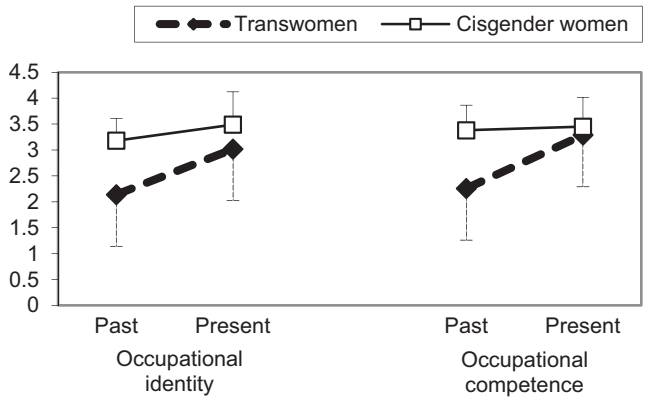

Figure 2. Differences between the two groups comparing the past with the present components of occupational identity and occupational competence.

differences were found between the past and present only in the transgender group, while the cisgender group remained stable. Further, the transgender women's improvement from past to present was such that while there was significant difference between the two groups of women in the past, this was not the case for the present.

To test which scale of the occupational performance history predicts the health and satisfaction with life of the women in both groups, Pearson correlation tests were first conducted. It was intended to examine the correlations between the demographic variables, occupational performance history scales, and health measures and satisfaction with life as well as the relationship between health measures and satisfaction with life. In addition, differences between groups based on categorical demographic variables in occupational performance history scales and health measures and satisfaction with life were tested. There were no differences between women with and without children and the single/in-relationship women in all dependent variables (i.e., occupational performance history scales, satisfaction with life, and health measures). The correlations that were found to be significant—the group variable and age variable—were included in the regression tests.

Health

The regression analysis indicated that demographic and occupational performance history scales as a whole made a significant contribution to the physical, mental, and overall health. An examination of the independent contribution of each factor to health showed that age significantly contributed to physical health ($B = .7$, $SE\ B = .31$, $\beta = .33$) and explained 8.7% of the variance for this parameter, $F(1, 42) = 5.1$, $p = .029$. The occupational settings were a predictor of mental health ($B = .53$, $SE\ B = .17$, $\beta = .43$) and explained 16.4% of the variance for this parameter, $F(1, 42) = 9.44$, $p = .004$, as well as a predictor of the overall health score ($B = .37$, $SE\ B = .17$, $\beta = .33$) and explained 8.6% of the variance for this parameter, $F(1, 42) = 5.04$, $p = .03$.

Satisfaction With Life

The regression analysis indicated that demographic and occupational performance history scales as a whole made a significant contribution to the women's satisfaction with life. An examination of the independent contribution of each factor showed that the occupational settings ($B = .28$, $SE\ B = .06$, $\beta = .64$), and group membership (transgender and cisgender groups) ($B = –4.9$, $SE\ B = 1.85$, $\beta = –.35$) were predictors of the women's satisfaction with life and explained 34.2% of the variance for this parameter, $F(1, 42) = 12.2$, $p = .001$.

Discussion

This study examined the difference in occupational performance history (occupational identity, occupational competence, and occupational settings scales) between MTF transgender and cisgender women as well as the relationship between occupational performance history, health, and life satisfaction for both populations. The study's findings extend the knowledge that exists in the current literature on the occupational transitions of MTF transgender women and provide initial data on their occupational identity and competence over time. The results indicate lower occupational performance history scores for women in the transgender group. Occupational settings were found to be a predictor of mental health, overall health, and life satisfaction in both groups, and group membership predicted life satisfaction.

Occupational identity and competence of transgender women in this study were significantly affected by the changes they experienced. All occupational performance history scales (occupational identity, occupational competence, and occupational settings) of transgender women were found to be lower than the scores for cisgender women. Transgender women undergo many hardships in an attempt to live satisfactorily. These hardships result in limited participation in everyday occupations, which is also constrained by societal expectation for gender roles, as was found among Canadian transgender people (Beagan et al., 2012, 2013). While this study was conducted in Israel, the results are in accordance with previous findings from other countries, including Canada, indicating that various life transitions influence occupational performance (see Blair, 2000; Braveman, & Helfrich, 2001; Buning et al., 2001; Hansen & Atchison, 2000; Huot & Laliberte Rudman, 2010). Transgender women undergo personal (physical) changes (such as hormonal changes and surgical operations; Cole et al., 2000; Kaplan et al., 2004; Michel et al., 2001) and occupational changes (such as employment and activities of daily living; Beagan et al., 2012, 2013; Jessop, 1993; Whittle, 2001) and experience changes in the different environments (such as the social and physical work environments; Cole et al., 2000). Any changes in those three components—the person, occupation, and environment—will transform occupational performance (CAOT, 2002; Law et al., 1996).

Interestingly, when we examined the gap between the past and the present in the occupational identity and competence scales, although significantly lower scores were found in the past compared to the present in both groups, the gap was greater for the transgender group than for the cisgender group, although this was statistically significant only for the identity scale. This gap, indicating improvement in the occupational identity and competence mainly for the transgender group, suggests that the occupational identity of transgender women is positively affected by the changes they go through. Occupational identity develops as a result of participating in occupations throughout the life cycle (Kielhofner, 2008). Transgender women did not always have the chance to form a consolidated occupational identity during their childhood and adolescence years (''the past''). This situation changed as they entered the process of transition (''the present''). This change also affects the ability to actualize the desired occupational identity, that is, the development of occupational competence.

Paralleling the stages of change, which Kielhofner (2008) named ''transformational change,'' with the stages of change that transgender women undergo may explain the differences in the development of identity and competence. The exploration stage is parallel to the women's past, meaning before the transition and could have occurred in childhood. According to the literature, at this stage, the transgender woman is trying to understand her gender identity by experiencing occupations that are culturally considered ''feminine'' (we use this term without trying to restrict the meaning of gender). However, people may react with ridicule, shock, and even violence to these experiences (Beagan et al., 2012; Cole et al., 2000), such that as early as in childhood, these women avoid personally desired occupations (Beagan et al., 2012), as opposed to cisgender women, who meet their gender's expectations. It may be the case in the current study that this avoidance worsened the conflicts that exist in these girls and delayed the development of their occupational identity.

Another way of explaining this difference between the two groups is with the concepts of doing, being, and becoming (Wilcock, 1999). The *doing* represents the active component of the occupation, which could be observed, and creates the basis for the formation of the individual's identity. The *being* requires the individual to reflect and discover himself or herself, whereas the *becoming* is the element of change and development. *Becoming* adds a sense of future to the idea of *being* and conveys the notions of transformation and self-actualization (Fidler & Fidler, 1978; Wilcock, 1999). According to these three dimensions of occupation, if there is no *doing* ''girl stuff'' and *being* a girl during the transgender women's childhood, there is no *becoming* or self-actualizing as a woman, which hinders their identity development.

The competency stage parallels the ''passing'' stage or, as Devor (2004) termed, ''transition.'' In this stage, transgender women are occupied with changing their bodies or presentation of self to better match their gender identity. They believe that doing so will allow them to build and express their occupationally congruent identity roles. At this stage (which may also occur at an older age), transgender women may begin to

construct a new occupational identity, according to their inclinations, as opposed to cisgender women, who do it throughout their lives.

The achievement stage parallels a stage, which in the transgender population is known as "a success in the transition." Devor (2004) also termed this as "integration" and "pride," meaning the realization of an occupational identity that matches a women's gender identity (*becoming*) in all areas of their life. It could be assumed that cisgender women have had an opportunity to realize their occupational identity throughout their whole lives (i.e., creating their occupational competence), and therefore, no clear differences were found between their past and present in the occupational competence scale. In contrast, transgender women began to develop occupational competence as they underwent the transition and experienced occupations that were meaningful to them as women.

It could be argued that the large gap found between the past and the present in the group of transgender women stems from their low occupational performance history scales scores in the past. However, as these women chose to go through a changing process, they developed occupations, routines, and habits according to their desires, and with the advancement of the changing process, their occupational performance history scales improved significantly. The results of the study show that the gap between the groups is largely reduced in the present and is insignificant in the competence scale.

It was found that the occupational settings scale was a predictor of mental health, general health, and satisfaction with life for both groups. These findings are in accordance with previous knowledge regarding the influence of the environment on health and well-being (Baum & Christiansen, 2005; Law et al., 1996). Scores on the occupational setting scale were lower for the transgender women in this study, which means that social and physical surroundings at work, at home, and with leisure activities were less supportive for the transgender group. For example, they felt less safe in their environments, had fewer social interactions, and received less appreciation from others. This finding supports previous studies that reported that transgender people experience social isolation and difficulty of establishing a romantic relationship (Kenagy, 2005). While the current study was not conducted in Canada, the findings complement studies that were conducted in Ontario, Canada, finding that social isolation may also lead to depression and at times may result in suicide (Bauer et al., 2013). In addition, as a result of the social discrimination in the workplace, many are forced to resign or work at jobs that they experience as being unsatisfying and often harmful to their health, such as prostitution (Clements-Nolle et al., 2001; Lombardi, 2001; Mathy, 2002; Oriel, 2000).

In addition, life satisfaction was predicted by group membership, with cisgender women scoring higher in life satisfaction than transgender women. Cisgender women had an established identity and appeared to successfully realize their identity and engage in meaningful activities in a supportive and challenging environment. Thus, they may be better able to experience harmony and satisfaction in life.

Practice Implications

Occupational therapists' main goal is to enable each person to reach optimal participation in everyday occupations, leading to improved health and well-being (AOTA, 2014; Law et al., 1998). The findings of this study may help practitioners who meet with their clients at a point of life transition to better understand the changes they go through and their influence on occupational performance. Transgender women might seek occupational therapy services for their difficulties in performing their everyday occupations in the process of change. The present study supports the role of occupational therapy in promoting occupational identity and competence of transgender women and giving special attention to their environment. This study creates the foundation for supporting diverse populations beyond those who are defined as having illness or disability.

Study Limitations

This study involved a small sample size, and not all transgender women were in the same stage of transition. This was due to the difficulty in recruiting participants from the transgender group. Therefore, for the transgender women who are still in the process of transition, their occupational performance and life satisfaction may not have finished the upward trajectory shown in the analysis. Potentially, their scores would be higher at a later stage of the transition. Further studies should investigate the changes in occupational performance in populations who undergo life transitions and their relationship to health and life satisfaction, specifically, transgender men and women. Longitudinal studies comparing occupational performance and health in different stages in the transition will allow us to better understand the relationship between occupational performance, health, and life satisfaction of transgender women and differentiate between the impact of the transition process and the negative effect from stigma and societal attitudes.

Conclusion

This study provided new knowledge on the occupational identity and competence of transgender women prior to and after the gender change (at least a year in the change process). The gap between the past and the present was greater for the transgender group than for the cisgender group. In addition, the study indicates the relationship between occupational settings and the health and satisfaction with life of both groups of women. It is important for occupational therapists to recognize the major transition transgender women go through in life and understand the transition and how it affects their occupational identity, competence, and settings in relation to their health and life satisfaction. Transgender people are at risk for occupational injustice. Using an occupational justice lens may advance social inclusion of transgender people who routinely experience social exclusion. Therefore, it is the responsibility of occupational therapy practitioners to promote the participation and inclusion of transgender people in community life and thus, foster occupational justice and equity.

Key Messages

- Going through a major transition in life, such as the transition transgender women go through, has an effect on occupational identity, occupational competence, and life satisfaction.
- Transgender women may seek occupational therapy or other rehabilitation services for their difficulties in performing their everyday occupations in the process of change.
- Occupational therapists have the tools to enable transgender people by identifying the change in their occupational routines and making occupational adjustments in accordance with new situations.

References

American Occupational Therapy Association. (2014). Occupational Therapy Practice Framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, *68*, S1–S48. doi:10.5014/ajot.2014.682006

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington, DC: Author.

American Psychological Association. (2009). *Report of the APA task force on gender identity and gender variance*. Retrieved from http://www.apa.org/pi/lgbt/resources/policy/gender-identity-report.pdf

Anaby, D., Jarus, T., & Zumbo, D. B. (2010). Psychometric evaluation of the Hebrew language version of the Satisfaction with Life Scale. *Social Indicators Research*, *96*, 267–274. doi:10.1007/s11205-009-9476-z

Bauer, G., Boyce, M., Coleman, T., Kaay, M., Scanlon, K., & Travers, R. (2010). Who are trans people in Ontario? *Trans PULSE E-Bulletin*, *1*, 1–2.

Bauer, G. R., Pyne, J., Caron Francino, M., & Hammond, R. (2013). Suicidality among trans people in Ontario: Implications for social work and social justice [La suicidabilité parmi les personnes trans en Ontario: Implications en travail social et en justice sociale]. *Service social*, *59*(1), 35–62. doi:10.7202/1017478ar

Baum, M. C., & Christiansen, C. H. (2005). Person–Environment–Occupation–Performance: An occupation-based framework for practice. In C. H. Christiansen, M. C. Baum, & J. Bass-Haugen (Eds.), *Occupational therapy: Performance, participation, and well-being* (3rd ed., pp. 242–267). Thorofare, NJ: Slack.

Beagan, B. L., Chiasson, A., Fiske, C., Forseth, S., Hosein, A., Myers, M., & Stang, J. (2013). Working with transgender clients: Learning from others to improve occupational therapy practice. *Canadian Journal of Occupational Therapy*, *80*, 82–91. doi:10.1177/0008417413484450

Beagan, B. L., De Souza, L., Godbout, C., Hamilton, L., MacLeod, J., Paynter, E., & Tobin, A. (2012). "This is the biggest thing you'll ever do in your life": Exploring the occupations of transgendered people. *Journal of Occupational Science*, *19*, 226–240. doi:10.1080/14427591.2012.659169

Bentur, N., & Epstein, S. (2001). SF-36: Kli lemedidat eichut haim hakshura lebriut velehaarachata [SF-36: A measure for evaluating health-related quality of life]. *Gerontology*, *28*, 187–216.

Blair, E. E. S. (2000). The centrality of occupation during life transitions. *British Journal of Occupational Therapy*, *63*, 231–237. doi:10.1177/030802260006300508

Bouchet, C., Guillemin, F., Paul-Dauphin, A., & Briancon, S. (2000). Selection of quality-of-life measures for a prevention trial: A psychometric analysis. *Controlled Clinical Trials*, *21*, 30–43. doi:10.1016/S0197-2456(99)00038-0

Braveman, B., & Helfrich, C. H. (2001). Occupational identity: Exploring the narratives of three men living with AIDS. *Journal of Occupational Science*, *8*, 25–31. doi:10.1080/14427591.2001.9686486

Buning, M. B., Angelo, J. A., & Schmeler, M. R. (2001). Occupational performance and the transition to powered mobility: A pilot study. *American Journal of Occupational Therapy*, *55*, 339–344. doi:10.5014/ajot.55.3.339

Canadian Association of Occupational Therapists. (2002). *Enabling occupation: An occupational therapy perspective* (Rev. ed.). Ottawa, ON: CAOT Publications ACE.

Clements-Nolle, K., Marx, R., Guzman, R., & Kutz, M. (2001). HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health. *American Journal of Public Health*, *91*, 915–921. doi:10.2105/AJPH.91.6.915

Cohen-Kettenis, P. T., & Gooren, L. J. G. (1999). Transsexualism: A review of etiology, diagnosis and treatment. *Journal of Psychosomatic Research*, *46*, 315–333. doi:10.1016/S0022-3999(98)00085-3

Cole, S. S., Denny, D., Eyler, A. E., & Samons, S. L. (2000). Issues of transgender. In L. T. Szuchman & F. Mauscarella (Eds.), *Psychological perspectives on human sexuality* (pp. 149–195). New York, NY: Wiley.

Connell, C. (2010). Doing, undoing, or redoing gender? Learning from the workplace experiences of transpeople. *Gender and Society*, *24*, 31–55. doi:10.1177/0891243209356429

Dean, L., Meyer, L. H., Robinson, K., Sell, R. L., Sember, R., Silenzio, V. M. B., . . . Tierney, R. (2000). Lesbian, gay, bisexual, and transgender health: Finding and concerns. *Journal of the Gay and Lesbian Medical Association*, *4*, 101–151. doi:10.1023/A:1009573800168

Devor, A. H. (2004). Witnessing and mirroring: A fourteen-stage model of transsexual identity formation. *Journal of Gay and Lesbian Psychotherapy*, *8*, 41–67. doi:10.1300/J236v08n01_05

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychology*, *55*, 34–43. doi:10.1037/0003-066X.55.1.34

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*, 71–75. doi:10.1207/s15327752jpa4901_13

Doan, P. L. (2010). The tyranny of gendered spaces: Reflections from beyond the gender dichotomy. *Gender, Place and Culture*, *17*, 635–654. doi:10.1080/0966369X.2010.503121

Fidler, G. F., & Fidler, J. W. (1978). Doing and becoming: Purposeful action and self-actualization. *American Journal of Occupational Therapy*, *32*, 305–310.

Goodman, J., Knotts, G., & Jackson, J. (2007). Doing dress and the construction of women's gender identity. *Journal of Occupational Science*, *14*, 100–107. doi:10.1080/14427591.2007.9686590

Grossman, A. H., O'Connell, T. S., & D'Augelli, A. R. (2005). Leisure and recreational "girl-boy" activities: Studying the unique challenges provided by transgendered young people. *Leisure/Loisir*, *29*, 5–26. doi:10.1080/14927713.2005.9651321

Hansen, R. A., & Atchison, B. (2000). *Conditions in occupational therapy: Effects on occupational performance* (2nd ed.). Baltimore, MD: Lippincott Williams & Wilkins.

Hayes, V., Morris, J., Wolfe, C., & Morgan, M. (1995). The SF-36 health survey questionnaire: Is it suitable for use with older adults? *Age and Aging*, *24*, 120–125. doi:10.1093/ageing/24.2.120

Hines, S. (2010). Queerly situated? Exploring negotiations of trans queer subjectivities at work and within community spaces in the UK. *Gender, Place and Culture*, *17*, 597–613. doi:10.1080/0966369X.2010.503116

Horne, J., Corr, S., & Earle, S. (2005). Becoming a mother: Occupational change in first time motherhood. *Journal of Occupational Science*, *12*, 176–183. doi:10.1080/14427591.2005.9686561

Huot, S., & Laliberte Rudman, D. (2010). The performances and places of identity: Conceptualizing intersections of occupation, identity and place in the process of migration. *Journal of Occupational Science*, *17*, 68–77. doi:10.1080/14427591.2010.9686677

IBM Corp. Released 2010. IBM SPSS Statistics for Windows, Version 19.0. Armonk, NY: IBM.

Jessop, N. (1993). Occupational therapy with a male-to-female transsexual: A case study. *British Journal of Occupational Therapy*, *56*, 322–324.

Jonsson, H., Josephsson, S., & Kielhofner, G. (2001). Narratives and experience in an occupational transition: A longitudinal study of the retirement process. *American Journal of Occupational Therapy*, *55*, 424–432. doi:10.5014/ajot.55.4.424

Kalantar-Zadeh, K., Kopple, J. D., Block, G., & Humphreys, M. H. (2001). Association among SF36 quality of life measures and nutrition, hospitalization, and mortality in hemodialysis. *Journal of the American Society of Nephrology*, *12*, 2797–2806.

Kaplan, H., Bar-Meir, E., Gilboa, D., Yaffe, B., Rabinovitch, O., Karasik, A., . . . Orenstein, A. (2004). Sex reassignment surgery. *Harefuah*, *143*, 500–504.

Kenagy, G. P. (2005). Transgender health: Finding from two needs assessment studies in Philadelphia. *Journal of Health and Social Work*, *30*, 19–26. doi:10.1093/hsw/30.1.19

Kenagy, G. P., & Hsieh, C. (2005). Gender differences in social service needs of transgender people. *Journal of Social Service Research*, *31*, 1–21. doi:10.1300/J079v31n03_01

Kielhofner, G. (2008). Doing and becoming: Occupational change and development. In G. Kielhofner (Ed.), *Model of Human Occupation: Theory and application* (4th ed., pp. 126–140). Baltimore, MD: Lippincott Williams & Wilkins.

Kielhofner, G., Mallinson, T., Crawford, C., Nowak, M., Rigby, M., Henry, A., & Walens, D. (2004). *A user's manual for the Occupational Performance History Interview (Version 2.1) OPHI-II*. Chicago: University of Illinois at Chicago.

Kielhofner, G., Mallinson, T., Forsyth, K., & Lai, J.-S. (2001). Psychometric properties of the second version of the Occupational Performance History Interview (OPHI-II). *American Journal of Occupational Therapy*, *55*, 260–267. doi:10.5014/ajot.55.3.260

Kirk, R. E. (1995). Experimental design: Procedures for the behavioral sciences (3rd ed.). Pacific Grove, CA: Brooks/Cole.

Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The Person-Environment-Occupation model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy*, *63*, 9–23. doi:10.1177/000841749606300103

Law, M., Steinwender, S., & Leclair, L. (1998). Occupation, health and well-being. *Canadian Journal of Occupational Therapy*, *65*, 81–91. doi:10.1177/000841749806500204

Lewin-Epstein, N., Sagiv-Schifter, T., Shabtal, E. L., & Shmueli, A. (1998). Validation of the 36-item short-form health survey (Hebrew version) in the adult population of Israel. *Medical Care*, *36*, 1361–1370.

Lippa, R. A. (2001). Gender-related traits in transsexuals and nontranssexuals. *Archives of Sexual Behavior*, *30*, 603–614. doi:10.1023/A:1011962917346

Lombardi, E. (2001). Enhancing transgender health care. *American Journal of Public Health*, *91*, 869–872. doi:10.2105/AJPH.91.6.869

Lynch, K. B., & & Bridle, M. J. (1993). Construct validity of the occupational performance history interview. *OTJR*: *Occupation, Participation and Health*, *13*, 231–240. doi:10.1177/153944929301300402

Mathy, R. M. (2002). Transgender identity and suicidality in a nonclinical sample: Sexual orientation, psychiatric history, and compulsive behaviors. *Journal of Psychology and Human Sexuality*, *14*, 47–65. doi:10.1300/J056v14n04_03

McGuire, J. K., Anderson, C. R., Toomey, R. B., & Russell, S. T. (2010). School climate for transgender youth: A mixed method investigation of student experiences and school responses. *Journal of Youth and Adolescence*, *39*, 1175–1188. doi:10.1007/s10964-010-9540-7

McNeil, J., Bailey, L., Ellis, S., Morton, J., & Regan, M. (2012). *Trans mental health study 2012*. Edinburgh, UK: Equality Network. Retrieved from http://www.gires.org.uk/assets/Medpro-Assets/trans_mh_study.pdf

Michel, A., Mormont, C., & Legros, J. J. (2001). A psycho-endocrinological overview of transsexualism. *European Journal of Endocrinology*, *145*, 365–376. doi:10.1530/eje.0.1450365

Oriel, K. A. (2000). Medical care of transsexual patients. *Journal of the Gay and Lesbian Medical Association*, *4*, 185–194. doi:10.1023/A:1026563806480

Pavot, W., & Diener, E. (1993). Review of Satisfaction With Life Scale. *Psychological Assessment*, *5*, 164–172. doi:10.1037/1040-3590.5.2.164

Polatajko, H. J., Backman, C., Baptiste, S., Davis, J., Eftekhar, P., Harvey, A., . . . Connor-Schisler, A. (2007). Human occupation in context. In E. A. Townsend & H. J. Polatajko , *Enabling occupation II: Advancing an occupational therapy vision for health, well-being, & justice through occupation* (pp. 37–62). Ottawa, ON: CAOT Publications ACE.

Rosenmann, A., & Safir, M. P. (2008). Sex, sexuality, and gender dichotomized: Transgender homosexuality in Israel. *Archives of Sexual Behavior*, *37*, 489–490. doi:10.1007/s10508-008-9330-4

Schilt, K., & Westbrook, L. (2009). Doing gender, doing heteronormativity: "Gender normal," transgender people, and the social maintenance of heterosexuality. *Gender and Society*, *23*, 440–464. doi:10.1177/0891243209340034

Sherbourne Health Centre. (2009). *Guidelines and protocols for comprehensive primary health care for trans clients*. Retrieved from http://sherbourne.on.ca/wp-content/uploads/2014/02/Guidelines-and-Protocols-for-Comprehensive-Primary-Care-for-Trans-Clients.pdf

Vallerand, R. J. (1989). Vers une méthodologie de validation transculturelle de questionnaires psychologiques: Implications pour la recherche en langue française. [Toward a methodology for the transcultural validation of psychological questionnaires : Implications for French language research.]. *Canadian Psychology*, *89*, 662–680. doi:10.1037/h0079856

Ware, J. E., & Sherbourne, C. D. (1992). The MOS 36 items short form health survey (SF-36): I. Conceptual framework and items selection. *Medical Care*, *30*, 473–483. doi:10.1097/00005650-199206000-00002

Whittle, S. (2001). *Employment discrimination and transsexual people*. Research report for GIRES, Ashtead. Retrieved from http://www.gires.org.uk/Text_Assets/Employment_Disc_Full_Paper.pdf

Whittle, S., Turner, L., Combs, R., & Rhodes, S. (2008). *Transgender EuroStudy: Legal survey and focus on the transgender experience of health care*. Brussels, Belgium: ILGA Europe. Retrieved from http://www.pfc.org.uk/pdf/eurostudy.pdf

Wilcock, A. A. (1998). *An occupational perspective of health*. Thorofare, NJ: Slack.

Wilcock, A. A. (1999). Reflections on doing, being and becoming. *Australian Occupational Therapy Journal*, *46*, 1–11. doi:10.1046/j.1440-1630.1999.00174.x

Wilcock, A. A. (2005). Relationship of occupations to health and well-being. In C. H. Christiansen, C. M. Baum, & J. Bass-Haugen (Eds.), *Occupational therapy: Performance, participation, and well-being* (3rd ed., pp. 135–166). Thorofare, NJ: Slack.

Yerxa, E. J., Clark, F., Frank, G., Jackson, J., Parham, D., Pierce, D., . . . Zemke, R. (1990). An introduction to occupational science: Foundation for occupational therapy in the 21st century. *Occupational Therapy in Health Care*, *6*, 1–17. doi:10.1080/J003v06n04_04

Author Biographies

Michal Avrech Bar, PhD, is Lecturer, Department of Occupational Therapy, School of Health Professions, Sackler Faculty of Medicine, Tel Aviv University, Israel.

Tal Jarus, PhD, OT, is Professor, Department of Occupational Science and Occupational Therapy, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada.

Mineko Wada, PhD, is Postdoctoral Research Fellow, Department of Occupational Science and Occupational Therapy, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada.

Leora Rechtman, BOT. At the time of the study, L. Rechtman was an occupational therapy student, Department of Occupational Therapy, School of Health Professions, Sackler Faculty of Medicine, Tel Aviv University, Israel.

Einav Noy, BOT. At the time of the study, E. Noy was an occupational therapy student, Department of Occupational Therapy, School of Health Professions, Sackler Faculty of Medicine, Tel Aviv University, Israel.