

Extent of Gender Identity Transitioning among Transgender Adults: Underlying Factors and Its Relationship to Psychological Distress and Suicidal Ideation

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Abstract

Purpose: Very little research has examined a true variety of transition milestones among transgender adults. This paper examines various transition milestones, the factors underlying them, and their relationship to psychological distress and suicidal ideation.

Methods: Data from the 2015 U.S. National Transgender Survey were used to examine transition milestones in a sample of 27,715 transgender Americans aged 18 or older. Eleven specific transition milestones were examined. The Kessler-6 scale was used to measure psychological distress and a dichotomous measure of past-year suicidal ideation was the other main outcome measure. Covariates in the multivariate analysis included sociodemographic variables and measures of anti-transgender harassment, discrimination, and violence.

Results: Most (72.5%) respondents reported reaching one to six of the transition milestones. The more milestones that people reached, the less likely they were to experience psychological distress or suicidal ideation. Factors underlying the number of transition milestones reached included age, adverse socioeconomic conditions, nonbinary gender identity, and having been urged by a professional not to be transgender.

Conclusions: Reaching more transition milestones tends to be beneficial to many transgender persons' mental health functioning. Younger persons, those experiencing adverse socioeconomic conditions, nonbinary individuals, and those who have been urged by a professional not to be transgender were likely to have reached fewer transition milestones.

Keywords: Transgender Adults, Transition Milestones, Psychological Distress, Suicidal Ideation

Introduction

For transgender persons, the process of transitioning from their gender assigned at birth to their gender of identity is oftentimes a lengthy one, and it is a multifaceted process. There are numerous personal factors involved in transitioning, ranging from initial self-identification of oneself as someone who is transgender, to accepting and incorporating that gender identity into one's psyche, to deciding what actions must be taken in order to be able to live as authentically as possible as a transgender person [1]. There are also a variety of interpersonal factors involved in

transitioning (referred to by some writers as social transitioning [UCSF Transgender Care, 2019]), including telling one's friends that one is transgender (and handling their initial and ongoing reactions to receiving that information), disclosing one's transgender identity to family members, disclosing one's transgender identity to acquaintances, disclosing information about one's gender identity to associates at work or school, and disclosing one's transgender identity to professionals such as physicians and mental health professionals with whom one has ongoing contact [1]. The transitioning process also entails a variety of

legal considerations, such as changing one's name and/or gender on official documents such as passports, driver's licenses, birth certificates, marriage certificates, banking records, and school transcripts, to name just a few [2, 1]. For many transgender persons, the transitioning process also entails some medical considerations, including making decisions about taking versus not taking gender-affirming hormones and undergoing versus not undergoing various gender-conforming surgical procedures that will help their outward appearance to be more congruent with their gender [3]. There is no particular ordering to these various transition-related tasks and challenges, and it is not at all uncommon for transgender persons to undergo multiple parts of their gender identity transition simultaneously (UCSF Transgender Care, 2019).

Somewhat surprisingly, not a lot of research has been done to address what might be termed transition milestones and their impact on transgender persons' lives (see below for two notable exceptions to this statement). By transition milestones, the present authors are referring to specific events or occurrences in transgender persons' transitioning experiences that demarcate their lives in a "before X happened" versus "after X happened" kind of way. These transition milestones represent different stages of progress in transgender persons' journey toward accepting and embracing their gender identity and incorporating that identity more fully into their everyday lives. Each milestone, once reached or achieved, is one additional step toward living authentically and completely as a member of the gender with which the person identifies most closely.

In this article, the present authors examine eleven specific transition milestones that are hypothesized to relate to psychological distress among transgender adults. The eleven transition milestones under consideration in this study are: (1) having informed ANY member of one's family that one is transgender, (2) having informed ALL members of one's family that one is transgender, (3) having informed ANY friends that one is transgender, (4) having informed ALL of one's friends that one is transgender, (5) having informed ANY coworkers, supervisors, and/or classmates that one is transgender, (6) having informed ALL of one's coworkers, supervisors, and/or classmates that one is transgender, (7) having changed one's name and/or gender on ANY of one's official legal documents (e.g., driver's license, birth certificate, Social Security records, student records, passport, etc.), (8) having changed one's name AND gender on ALL of one's official legal documents, (9) having begun taking gender-affirming hormone treatments, (10) having had ANY gender-affirming surgical procedure, and (11) having had ALL gender-affirming surgical procedures available to persons of that gender-of-identity. It is important to reiterate an earlier point: By examining transition milestones and their impact on transgender persons' lives, no specific temporal ordering of the transition milestones is necessary or implied. Some transgender people may reach transition milestone #5 before they reach transition milestone #1, for example, due to their unique experiences and the people with whom they interact during their daily lives. For many people, there is a constant, slow progression throughout the various transition milestones, and several of the transition milestones are likely to be "works in progress" at any given point in time [4, 5]. It is also worth noting that not all transgender persons want to or even try to reach all of the transition milestones. Some per-

sons, for example, might be content with having only their closest friends and/or family members know about their transgender identity, and feel no urge to share that information with others in their lives. As another example, some transgender persons might not want to undergo particular gender-affirming surgical procedures as part of their transitioning journey. Each transgender person's journey toward physical and emotional wholeness will differ as they undertake the transitioning process, and undoubtedly this will be reflected in the extent to which they reach or do not reach the various transition milestones under study. The present authors' primary hypothesis is that reaching/attaining these specific transition milestones will be associated with reduced feelings of psychological distress. A secondary hypothesis examined in this research is that the more of the transition milestones that people reach/attain, the lower their likelihood will be of experiencing psychological distress, serious psychological distress, and suicidal ideation.

Two of these transition milestones—namely, beginning hormone treatments to facilitate gender identity affirmation and undergoing gender-conforming surgical procedures—have been the subject of a much greater amount of previous research than all of the others. To date, almost all of the published studies have demonstrated positive outcomes associated with the commencement of gender-affirming hormone treatments and gender-affirming surgical procedures [6-12]. The other transition milestones enumerated above have been the subject of very little research.

Contrasting with and contributing to the existing scientific literature, the present study focuses on all eleven of the aforementioned transition milestones. This paper examines the following research questions: (1) Which transition milestones are met most/least often among transgender adults? (2) Is there a relationship between reaching more versus fewer of the transition milestones and outcomes such as overall level of psychological distress, the odds of experiencing serious psychological distress, and the chances of contemplating suicide? (3) What factors are associated with reaching more versus fewer of the transition milestones under study?

Methods

Data and Procedures

The data for the present research came from the 2015 U.S. Transgender Survey (USTS2015) [13]. Data were collected during the summer of 2015, from a total sample of 27,715 transgender persons residing anywhere in the United States or one of its territories, or who were living overseas while serving actively in the U.S. military. At the time it was conducted, it was the largest study of its kind ever having been undertaken to understand transgender persons' lives. Access to the survey was centralized via a single online portal/website, and all persons completed the survey online. It could be completed via any type of web-enabled device (e.g., computer, tablet, smart phone, etc.) and was available both in English and Spanish language versions.

The questionnaire collected information pertaining to a wide variety of types of harassment, discrimination, and violence that transgender persons may have experienced in a wide variety of settings, such as work, school, public restrooms, public places, governmental offices, while serving in the military, among others. The USTS2015 questionnaire contained some information

pertaining to substance use and mental health functioning. It also captured information about various aspects of the transitioning process, including social aspects of transitioning (e.g., divulging information about one's transgender identity to partners, friends, family members, coworkers, etc.), taking hormone treatments, and various surgical procedures that might be undergone to facilitate gender identity integration. Detailed demographic-type data about each respondent were also collected.

Participants were offered the opportunity to win either a \$500 participation grand prize (n=1) or a \$250 participation prize (n=2), chosen by random at the end of the data collection period. More than one-third (35.2%) of the eligible persons opted not to enter in the prize drawing. If they did not enter the raffle or were not one of the three prize winners chosen at random, then participation entailed receiving no other rewards/incentives/remunerations.

Extremely detailed information about the study, its content, its initial development, and its implementation may be found in James et al. (2016). The original USTS2015 study received institutional review board approval from the University of California–Los Angeles prior to implementation. The present research for the secondary analysis of the USTS2015 data received institutional review board approval from California State University–Long Beach.

Measures Used

The main variables of interest in this study captured information about eleven specific transition milestones: Milestone #1 was the point at which the person had told ANY of his/her family members that he/she is transgender. Milestone #2 was the point at which the person had told ALL of his/her family members that he/she is transgender. Milestone #3 is the point at which the person had told ANY of his/her friends that he/she is transgender. Milestone #4 was said to be reached when ALL of the person's friends had been made aware of his/her transgender identity. Milestone #5 entailed telling ANY of one's coworkers, supervisors, classmates, or others at school about being transgender, and Milestone #6 occurred when ALL such persons had been informed. Milestone #7 involved changing one's name or gender on at least one form of official identification (e.g., Social Security card, driver's license, student records, birth certificate, passport, etc.), and Milestone #8 was said to be reached when ALL such documents bore the person's name and preferred gender. Milestone #9 was the time when the person began taking hormones to facilitate the physical transitioning of genders. Milestone #10 was reached by anyone who underwent ANY gender-affirming surgical procedure. Milestone #11 was reached by anyone who underwent ALL of the gender-affirming surgical procedures available for someone of his/her gender. Each milestone was scored as 0 (not reached) or 1 (milestone reached) and, as stated earlier, no temporal ordering of these milestones is implied by their numbering.

For the present paper, three dependent variables were examined: overall level of psychological distress, serious psychological distress, and suicidal ideation. Respondents' overall level of psychological distress during the previous 30 days was assessed using the Kessler-6 Scale [14]. It consists of six items, summed for the purpose of creating the overall level of psychological dis-

tress scale, with ordinal responses including "never" (scored 0), "a little of the time" (scored 1), "some of the time" (scored 2), "most of the time" (scored 3), and "all of the time" (scored 4). Each item inquired how frequently, during the previous thirty days, people felt (1) so sad that nothing could cheer them up, (2) nervous, (3) restless or fidgety, (4) hopeless, (5) that everything was an effort, and (6) worthless. The scale is reliable, with a Cronbach's alpha of 0.91. In addition to the overall level of psychological distress scale score, scores on the Kessler-6 scale were converted to a dichotomous measure indicating "serious psychological distress" or "no serious psychological distress," based on whether or not the scale score was 13 or greater [15]. The other dependent variable of interest in these analyses, suicidal ideation, was assessed via a dichotomous measure indicating if the person had or had not thought about ending his/her life during the previous year.

Numerous independent variables were included as potential covariates in the bivariate and multivariate analyses. Several of these were demographic-type variables: gender identity (dichotomous, transgender male or transgender female; persons who self-identified as nonbinary with no inclination toward the male or female gender were excluded from this particular measure), self-identification as binary or nonbinary (dichotomous), age (dichotomous, ages 18-29 versus ages 30 or older), (3) race (dichotomous, comparing Caucasians to persons of color), relationship status (dichotomous, married/"partnered" versus not "involved"), (5) living near or below poverty line (yes/no), educational attainment (dichotomous, at least a college graduate versus persons with less education), unemployment status (dichotomous, unemployed versus not unemployed), self-assessed overall health (ordinal measure), health/medical insurance (dichotomous, insured versus uninsured), and ever had a professional such as a physician, mental health specialist, or clergy person try to convince one not to be transgender (yes/no).

In addition, the extent to which people experienced anti-transgender discrimination, harassment, and/or violence during the preceding year was examined as a potential predictor variable in the bivariate and multivariate analyses. This a scale measure comprised by 20 items, each scored 0 (did not happen) or 1 (happened). These were: (1) low level of support from one's family members for being transgender, (2) leaving or being ejected from a religious/faith community due to being transgender, (3) experienced transgender-related discrimination or problems with one's health insurance company, (4) experienced discrimination, harassment, or substandard care from a doctor or other healthcare professional because of being transgender, (5) a general perception of being treated unequally as a result of being transgender, (6) experienced verbal harassment from others due to being transgender, (7) was physically attacked by another person due to being transgender, (8) being harassed or threatened when using a public restroom, (9) terminated from a job due to being transgender, (10) being forced or feeling coerced to leave a job due to being transgender, (11) not being hired for a job or not being promoted as a result of being transgender, (12) feeling a need to take specific steps at work in order to avoid transgender-related problems or confrontations, (13) having problems with one's work supervisor as a result of being transgender, (14) was physically assaulted or attacked at work due to being transgender, (15) experienced housing-related dis-

crimination or harassment due to one's gender identity or gender expression, (16) feeling a need to avoid utilizing public services just to minimize the chances of experiencing transgender-related discrimination or harassment, (17) experienced bullying or other types of transgender-related harassment in school prior to high school graduation, (18) experienced bullying or other types of transgender-related harassment in college, (19) was treated unequally or harassed by Transportation Security Administration (TSA) personnel when trying to travel, and (20) was treated unequally or harassed by members of the police force as a result of being transgender. This scale is reliable, with a Cronbach's alpha coefficient of 0.76.

Statistical Analysis

Throughout this paper, as a result of the large sample size, results are reported as being statistically significant whenever $p < .01$ instead of the usual $p < .05$. Using a more-rigorous standard for construing a finding as being indicative of statistical significance is advisable in a study such as the present one, in which a large sample size is used. The use of this level of increased scientific rigor is supported by statisticians who have discussed the merits and drawbacks of adopting various p-value thresholds [16].

For the first part of the analysis, the number of transition milestones reached (a continuous measure) was used as the dependent variable and the various measures listed above (all of which were dichotomous measures) were examined as independent variables. This entailed performing a series of Student's t tests.

In the next part of the analysis, items that were statistically significant ($p < .01$) or marginally significant ($.10 > p > .01$) in these bivariate analyses were entered into the multivariate equation, to determine which factors influenced the number of transition milestones reached once the impact of the other measures was considered. This entailed performing a multiple regression analysis. Both a forward-selection and a backward-elimination approach were used, to make sure that the order of adding/deleting measures into the equation did not affect the outcome. (Please note: In the interest of keeping the Results section shorter and better focused, only the final results of these multivariate analyses are presented. Readers who are interested in seeing the specifics of the bivariate analyses are encouraged to contact the lead author.)

The relationship between the number of transition milestones reached and overall level of psychological distress (both continuous measures) was examined by computing a Pearson's r correlation coefficient. The association between the number of transition milestones reached (continuous) and serious psychological distress (dichotomous) was analyzed via logistic regression. Similarly, the relationship between transition milestones and suicidal ideation (dichotomous) also entailed logistic regression.

Subsequently, multivariate analyses were performed to determine whether or not the number of transition milestones that people had reached remained predictive of each of the three outcome measures when the impact of the other potential covariates was considered. This entailed using multiple regression for the analysis focusing on overall level of psychological distress; and it entailed using multivariate logistic regression for the analyses focusing on severe psychological distress and suicidal ideation.

In a few instances (see the Results section write-up, below) when providing the supplemental information was particularly illuminating, additional analysis comparing persons who had reached none or very few of the transition milestones to persons who had reached all or almost all of the transition milestones were undertaken. These comparisons entailed grouping respondents into two groups: those who had reached 0–3 of the transition milestones and those who had reached 8–11 of the transition milestones. (Persons who had reached 4–7 of the milestones were excluded from these particular analyses.) Then odds ratios were used (with 95% confidence intervals also being reported) to compare these two groups on a few of the independent variables.

Results

Reaching Transition Milestones

Most (79.8%) of the respondents had told at least one family member that they are transgender (Transition Milestone #1), and 28.5% of these persons (22.7% of the total sample) had disclosed this information to all family members (Transition Milestone #2). Almost all (96.5%) of the study participants had told at least one friend that they are transgender (Transition Milestone #3), and 33.2% of these individuals (32.0% of the total sample) had divulged that information to all of their friends (Transition Milestone #4). Approximately two-thirds (67.2%) of the respondents had informed at least one of their classmates or coworkers that they are transgender (Transition Milestone #5), and nearly one-half (48.7%) of these persons (32.7% of the total sample) had shared that information with all of their classmates or coworkers (Transition Milestone #6). Fewer than one-half (41.2%) of the people participating in this study had changed their name and/or gender on at least one legal document, (Transition Milestone #7) and 16.8% of these individuals (6.9% of the total sample) had changed their name and their gender on all of their legal documents (Transition Milestone #8). Almost one-half (47.7%) of the respondents had begun taking gender-affirming hormones (Transition Milestone #9). One-third (33.4%) of the people taking part in the study had undergone at least one gender-conforming surgical procedure (Transition Milestone #10), with 1.3% of these persons (0.4% of the total sample) having undergone all such procedures available to someone of his/her gender (Transition Milestone #11).

Very few of the study participants reported having reached none of the eleven transition milestones examined in conjunction with the present research (1.8%) or all eleven of them (0.1%). Substantial numbers of persons had reached one or two of the transition milestones (25.1%), three or four of them (24.9%), or five or six of them (22.5%).

Factors Associated with Reaching More of the Transition Milestones

All of the independent variables examined were found to be related to the number of transition milestones that people had reached. Reaching a larger number of transition milestones was associated with: being a transgender woman (5.07 versus 4.18, $t = 29.47$, $p < .0001$), being aged thirty or older (5.49 versus 3.95, $t = 52.95$, $p < .0001$), having at least a college graduate (5.11 versus 4.22, $t = 29.52$, $p < .0001$), being Caucasian (4.58 versus 4.45, $t = 3.23$, $p = .0012$) or African American (4.80 versus 4.55, $t = 2.75$, $p = .006$), not being unemployed (4.67 versus 4.22, $t = 12.93$,

$p < .0001$), not living near or below the poverty line (4.79 versus 4.22, $t = 17.51$, $p < .0001$), being binary in one's gender identity (5.13 versus 3.34, $t = 59.34$, $p < .0001$), having health/medical insurance (4.60 versus 4.23, $t = 8.16$, $p < .0001$), being married or "involved" with someone (4.96 versus 4.47, $t = 12.70$, $p < .0001$), and having had a professional such as a physician, mental health professional, or member of the clergy try to talk one out of being transgender (5.40 versus 4.42, $t = 22.60$, $p < .0001$).

These items were entered into a multivariate equation to determine which ones contributed to the overall prediction of the number of transition milestones reached once the impact of the other measures was considered. The results are shown in the upper portion of Table 1. Seven items were found to contribute

significantly to the model: age ($\beta = 0.22$, $p < .0001$), educational attainment ($\beta = 0.11$, $p < .0001$), employment status ($\beta = 0.04$, $p < .0001$), self-identification as nonbinary ($\beta = 0.28$, $p < .0001$), having health/medical insurance ($\beta = 0.04$, $p < .0001$), relationship status ($\beta = 0.07$, $p < .0001$), and having had a professional try to convince one to not be transgender ($\beta = 0.11$, $p < .0001$). Together, these items explained 19.2% of the total variance. As the lower portion of Table 1 shows, the same seven items were found to be the main differentia of persons who had reached none or very few of the transition milestones versus those who had reached almost all or all of them. Together, these seven measures accounted for 36.1% of the variance between the two groups.

Table 1: Multivariate Predictors of the Number of Transition Milestones Reached

Independent Variable			
TOTAL NUMBER OF TRANSITION MILESTONES REACHED	b	β	$p < x $
Age = 30 or older	1.11	0.22	0.0001
Educational attainment: at least a college graduate	0.54	0.11	0.0001
Unemployed	-0.23	0.04	0.0001
Nonbinary	-1.48	0.28	0.0001
Has health/medical insurance	0.28	0.04	0.0001
Relationship status: married or "involved"	-0.47	0.07	0.0001
Had a professional try to convince not to be transgender	0.81	0.11	0.0001
NONE / FEW VERSUS ALL / NEARLY ALL TRANSITION MILESTONES REACHED	OR	CI95	$p < x $
Age = 30 or older	4.37	3.96–4.81	0.0001
Educational attainment: at least a college graduate	2.07	1.89–2.27	0.0001
Unemployed	0.70	0.62–0.78	0.0001
Nonbinary	0.14	0.13–0.16	0.0001
Has health/medical insurance	1.47	1.27–1.70	0.0001
Relationship status: married or "involved"	0.55	0.49–0.61	0.0001
Had a professional try to convince not to be transgender	2.38	2.10–2.71	0.0001

Reaching Transition Milestones and Mental Health Outcomes
The greater the number of transition milestones people had reached, the lower their overall levels of psychological distress tended to be ($r = 0.26$, $p < .0001$). Figure 1 shows this relationship quite clearly. Examined somewhat differently, persons who had reached none or only a few of the transition milestones were nearly four times as likely to experience serious psychological distress as those who had reached almost all or all of the transition milestones (OR = 3.84, CI95 = 3.52–4.20, $p < .0001$).

The greater the number of transition milestones reached, the lower the odds were that people would contemplate suicide (OR = 0.91, CI95 = 0.90–0.92, $p < .0001$). This relationship is depicted in Figure 1. Examined somewhat differently, persons who had reached none or only a few of the transition milestones were twice as likely to think about ending their lives when compared to their peers who had reached all or almost all of the transition milestones (OR = 2.07, CI95 = 1.92–2.23, $p < .0001$).

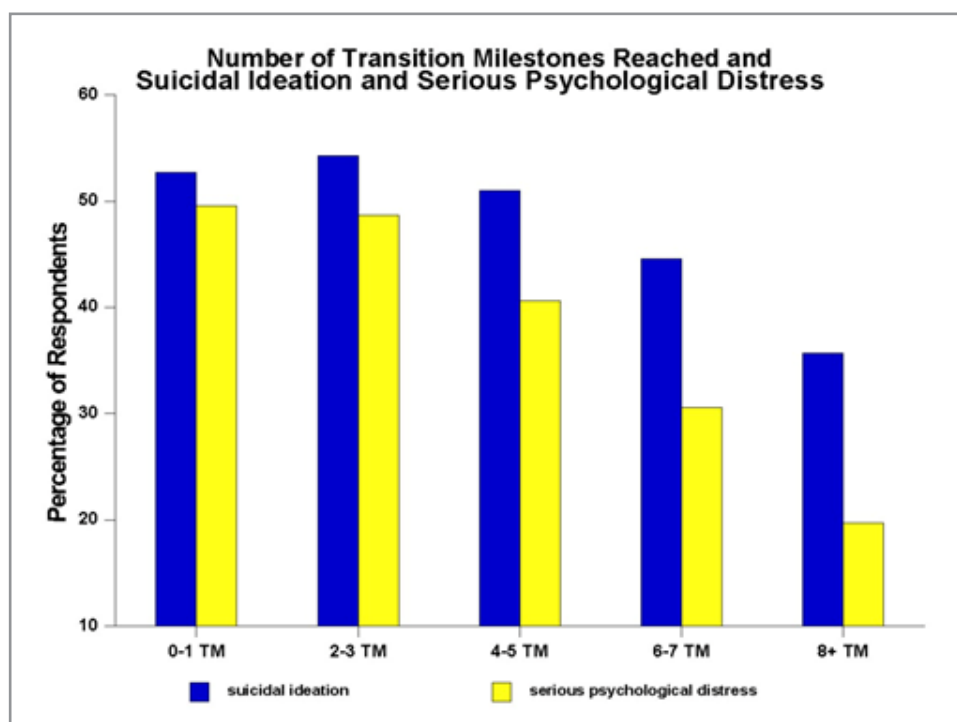


Table 2 presents the findings from the multivariate analyses examining whether the number of transition milestones reached remains significant when the impact of the other independent variables is considered. The first block presents the results for overall levels of psychological distress. The second block presents the results for serious psychological distress. The third

block presents findings for suicidal ideation. In each case, the data revealed that the more transition milestones people reached, the lower their risk was for the adverse outcome measure in question. Moreover, the number of transition milestones reached was, in each equation, one of the two most impactful items retained.

Table 2: Multivariate Analyses for Factors Associated with Overall Level of Psychological Distress, Serious Psychological Distress, and Suicidal Ideation

Independent Variable			
OVERALL LEVEL OF PSYCHOLOGICAL DISTRESS	b	β	p< x
Age = 30 or older	2.44	0.20	0.0001
Educational attainment: at least a college graduate	-1.49	1.20	0.0001
Unemployed	2.23	0.60	0.0001
Nonbinary	1.60	0.05	0.0001
Has health/medical insurance	-0.58	0.03	0.0001
Relationship status: married or “involved”	-0.46	0.03	0.0001
Had a professional try to convince not to be transgender	0.74	0.04	0.0001
Poverty	0.62	0.05	0.0001
Number of types of anti-transgender experiences	0.43	0.25	0.0001
Number of transition milestones reached	-0.54	0.22	0.0001
SERIOUS PSYCHOLOGICAL DISTRESS	OR	CI95	p< x
Age = 30 or older	2.15	2.01–2.30	0.0001
Educational attainment: at least a college graduate	0.56	0.53–0.60	0.0001
Unemployed	2.13	1.99–2.27	0.0001
Nonbinary	1.22	1.14–1.29	0.0001
Has health/medical insurance	0.81	0.75–0.88	0.0001

Relationship status: married or “involved”	0.85	0.78–0.93	0.0003
Had a professional try to convince not to be transgender	1.36	1.25–1.48	0.0001
Poverty	1.20	1.12–1.27	0.0001
Number of types of anti-transgender experiences	1.15	1.14–1.16	0.0001
Number of transition milestones reached	0.83	0.82–0.84	0.0001
SUICIDAL IDEATION	OR	CI95	p< x
Gender identity = female	1.17	1.11–1.24	0.0001
Age = 30 or older	1.77	1.66–1.89	0.0001
Educational attainment: at least a college graduate	0.60	0.57–0.64	0.0001
Unemployed	1.60	1.50–1.70	0.0001
Nonbinary	1.13	1.06–1.20	0.0001
Has health/medical insurance	0.88	0.81–0.96	0.0022
Relationship status: married or “involved”	0.82	0.76–0.89	0.0001
Had a professional try to convince not to be transgender	1.29	1.19–1.40	0.0001
Poverty	1.15	1.08–1.22	0.0001
Number of types of anti-transgender experiences	1.16	1.15–1.17	0.0001
Number of transition milestones reached	0.89	0.88–0.91	0.0001

Discussion

The present study has demonstrated that the more transition milestones transgender persons have reached, the less likely they were to experience psychological distress, serious psychological distress, and suicidal ideation. The differences were particularly noticeable for persons who had reached none or just a few of the transition milestones when compared to those who had reached almost all or all of them. This finding was a robust one, holding up in multivariate analyses that controlled for a variety of other factors that contributed to the overall understanding of these adverse mental health-related outcomes. A number of published studies have addressed the benefits that are typically derived when transgender people begin gender-affirming hormones—benefits such as reduced anxiety, reduced social anxiety, lower rates of depression, among others [17, 18]. Similar positive outcomes have been reported among transgender individuals who have undergone gender-conforming surgical procedures [10]. The present study is consistent with these studies’ findings and expands upon them by demonstrating that other transition milestones are also important in transgender persons’ lives and in their emotional/psychological well-being. That is, it is not merely the medical aspects of transitioning that are beneficial to transgender persons’ mental health functioning and their overall emotional/psychological well-being but also the social, legal, and interpersonal aspects of transitioning. This study has shown that the more that transgender people are able to integrate a variety of transition-related changes into their lives—the physical/medical aspects of transitioning as well as the social and interpersonal aspects of transitioning—the more likely they are to avert or minimize problems such as psychological distress and feelings of suicidal ideation.

The principal implication of this finding is that programs working with transgender persons ought to provide a full array of transitioning-related services and support systems, to make it possible for transgender persons who are actively transitioning to their gender-of-identity to make strides in this area of their

lives. A few programs around the United States already offer such transitioning support services. For example, The Transgender Institute (TTI) offers various workshops specifically designed to help transgender persons who are actively transitioning to learn specific things that they can do to facilitate visual conformity with their affirmed gender. For example, TTI offers a course entitled Feminine Immersion Program specifically targeting transgender women. The course addresses issues such as voice feminization techniques, body language and movement, hair styling, makeup application, laser hair removal and electrolysis consultations, among other services [19]. TTI also offers a parallel program for transgender men, entitled Men’s Program, providing services such as “exclusive men’s salons for haircuts, shaves, facial hair shaping, fashion styling and tailoring to fit the man’s shape and to enhance his bodily strengths and minimize those things about his body that he dislikes, and which often cause him dysphoria” [20]. Similar types of services are offered by Duke Health as part of the North Carolina-based Duke University Hospital (Duke Health, 2022), the nonprofit group Trans Lifeline through its online blog (Trans Lifeline, 2023), Oregon Health and Science University through its series of YouTube videos and “grand rounds” sessions focusing on a wide array of social and medical issues relevant to actively-transitioning transgender persons, to name a few [21, 22]. Oklahomans for Equality (based in Tulsa, Oklahoma) operates the Dennis R. Neill Equality Center which provides a variety of services, including a bimonthly “clinic” designed to help transgender people with legally changing their name, support groups for family members and life partners of transgender and gender-nonbinary persons, as well as social and support groups for transgender individuals themselves [23]. The National Center for Transgender Equality offers online support on a state-by-state basis to assist transgender individuals with legally changing their name and gender on official documents [24]. The present study’s findings relating to more-complete versus less-complete transitioning suggest that it is organizations like those just listed offering services such as

those described above that are likely to be particularly beneficial to transgender persons and their mental health functioning.

Additionally, the present study identified several specific factors that were associated with more-complete or more-advanced stages of transitioning. Younger adults (i.e., those aged 18–29), for example, had reached far fewer of the transition milestones than their older counterparts. Previous research has demonstrated that, compared to their older counterparts, younger adults in general are more susceptible to problems with depression and suicidal ideation [19, 20]. This was true in the present study as well. When this is coupled with the present study's finding that younger adults typically were at earlier stages or less-complete stages in their transitioning when compared to their older counterparts, it highlights the need to offer more transitioning support services to younger transgender adults. This, in turn, is likely to benefit their mental health. This is an understudied area in the extant literature and would be an excellent area for future researchers to pursue.

The present study also found that several measures relating to socioeconomic status were also related to transgender persons' extent of transitioning. People who were unemployed were less likely than those who had jobs to have reached most or all of the transition milestones. Persons with no health insurance were also less likely than their insured counterparts to have reached most or all of the transition milestones. Not being married or "involved" with someone was also linked with greater odds of not having attained a larger number of transition milestones. Greater education was found to be associated with reaching more transition milestones. Taken together, these findings suggest that socioeconomic challenges hinder many transgender persons' ability to undertake at least some of the steps involved in gender transitioning. Presumably, this is because most of these steps entail at least some amount of financial expense (e.g., getting a new driver's license necessitates an expense, applying for a new passport incurs a new expense), and some of the transition-related activities involve incurring substantial financial costs (e.g., hiring attorneys to assist with legal name and gender changes is not inexpensive, gender-conforming surgical procedures are expensive and, oftentimes, are not covered by medical insurance). For transgender persons for whom socioeconomic conditions are less than ideal, these expenses may be cost-prohibitive, thereby precluding these individuals from undertaking some of their desired transitioning activities. Other researchers have noted that socioeconomic disadvantages are more common among transgender persons than they are among others in the population-at-large, and that these disadvantages have adverse consequences for the affected persons [25, 26]. The present study's findings demonstrate one additional way that socioeconomic adversities appear to be affecting transgender persons—namely, by preventing some of them from undertaking more transitioning-related steps.

The present study also found that binary/nonbinary gender identity was a key predictor of more- versus less-advanced transitioning, with binary persons having reached more of the transition milestones overall than their nonbinary counterparts. This was particularly true for the three transition milestones pertaining to medical transitioning. Binary persons were more than six times as likely as nonbinary persons to have begun taking gender-affirming

hormones (OR = 6.08, CI95 = 5.73–6.46, $p < .0001$). They were more than five times as likely to have undergone at least one gender-conforming surgical procedure (OR = 5.38, CI95 = 5.02–5.77, $p < .0001$), and more than thirteen times more likely to have undergone all gender-conforming surgical procedures available to someone of their affirmed gender (OR = 13.70, CI95 = 5.05–37.17, $p < .0001$). Binary persons were also much more likely than nonbinary persons to have changed their name and their gender on all of their official documents (OR = 8.87, CI95 = 7.28–10.81, $p < .0001$). In all likelihood, these differences reflect a greater desire on the part of binary-identified transgender persons to want to be able to present themselves to the outside world as members of their gender of identity, and to be able to transform themselves more completely from their gender assigned at birth to their gender of identity. For nonbinary persons, in contrast, such considerations are probably less important because, as a group, they are less committed to conforming themselves to socially-established gender norms for appearance and behavior. Given their disinterest in and/or unwillingness to conform to those gender-based appearance and behavioral norms, nonbinary individuals are probably less likely to prioritize changing their name and/or gender on legal documents and less likely to undergo the various procedures involved in medical gender transitioning. These are points and interpretations that have been offered by other researchers as well [27, 28]. In general, very little has been written about differences between binary-identified and nonbinary-identified transgender individuals and, as a result, the present study's finding with regard to the role that (non)binary self-identification plays in gender identity transitioning is not well understood. Clearly, the present research has shown that the binary/nonbinary distinction is a very meaningful one when it comes to transitioning, and much more research needs to be done to understand this dynamic more fully.

Finally, the present research found that having had a professional (e.g., physician, mental health specialist, member of the clergy) try to convince one not to be transgender was associated with more, not less, transitioning. This finding is the opposite of what the present authors had hypothesized, and it not a simple or straightforward one to explain. It may indicate a type of reaction formation, in which people are making a point of doing exactly what they have been told not to do because they are resentful of professionals' advice to not be their authentic, transgender selves. It may also be a manifestation of psychological reactance [15–27].

Reactance occurs when an individual feels that an agent is attempting to limit one's choice of response and/or range of alternatives. Reactance can occur when someone is heavily pressured into accepting a certain view or attitude. Reactance can encourage an individual to adopt or strengthen a view or attitude which is indeed contrary to that which was intended—which is to say, to a response of noncompliance—and can also increase resistance to persuasion (Wikipedia, 2023).

If this interpretation is correct, then the implication of the present study's finding is that professionals wishing to help transgender persons would be wise to listen to their concerns and assist them with their transitioning processes instead of trying to prevent them from transitioning in the first place. When professionals try to preclude transgender persons from being their true selves and live their authentic lives as transgender individuals, it is likely to back-

fire and, at the same time, cause emotional harm to the transgender people who reached out to seek help or counsel from these professionals in the first place. This particular finding from the present study is one that merits investigation in future research and, if replicated, further study to understand the underlying dynamics more fully.

In conclusion, the present study has shown that the substantial majority of the study participants (72.5%) had reached anywhere from one to six of the eleven transition milestones studied, likely indicating a process of ongoing gender transitioning in their lives. Conversely, very few persons had reached zero of the eleven transition milestones examined in this study, and very few had reached all eleven of the transition milestones studied. The more transition milestones that people had reached, the less likely they were to suffer from adverse mental health outcomes such as psychological distress, serious psychological distress, and suicidal ideation. Numerous characteristics were found to be important predictors of more-complete/more-advanced versus less-complete/less-advanced transitioning. Key among these were age, socioeconomic status, binary/nonbinary gender identity, and having had professionals try to convince people not to be transgender.

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