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Short communication

Impact of active concealment of stigmatized identities on physical and psychological quality of life

Diane M. Quinn[*, 1], Bradley M. Weisz [2], Elizabeth K. Lawner [1]

[a] University of Connecticut, USA

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ABSTRACT

Despite theoretical support for the relationship between disclosure (or "outness") and positive health outcomes for people with concealable stigmatized identities, research using outness to predict health elicits weak to inconsistent relationships. In the current research we argue that it is the need to frequently conceal that predicts negative health consequences, rather than outness.

A sample of adults recruited from Amazon's Mechanical Turk reported on mental illness, chronic physical illness, or minority sexual orientation (N = 288) concealment. Participants were surveyed on their levels of outness (in general and to specific others), their frequency of active concealment of the identity, and their physical and psychological quality of life (as measured by the WHOQOL-BREF). All surveys were completed from IP addresses in the United States in 2014. Results showed that the extent of active concealment predicted self-reported psychological ($\beta = -0.32$, $p < 0.001$) and physical QOL ($\beta = -0.28$, $p < 0.001$) over and above general levels of outness and outness to specific others, neither of which were significant predictors with concealment in the model. By examining the need for active concealment, researchers may be better positioned to predict and intervene to improve health outcomes for people with concealable stigmatized identities.

People who possess socially stigmatized identities are at higher risk for poor health outcomes (Hatzenbuehler et al., 2013). For people with concealable stigmatized identities—identities that can be hidden from other people, such as mental illness or minority sexual orientation—disclosing the identity to others (i.e., being "out") is theorized to bring health benefits (Meyer, 2003). Outness has been measured both in terms of the extent of outness to specific people in one's life (e.g., mother, father, romantic partner, etc.; Mohr and Fassinger, 2000) and one's general level of outness (Martin and Dean, 1990). Findings from research investigating the health benefits of outness for people with concealable stigmatized identities, however, have been weak to inconsistent—some studies have found evidence for the hypothesized benefits of outness, while others have found that outness can be harmful (e.g., Bos et al., 2009; Legate et al., 2012; McGarrity and Huebner, 2014).

Conflated within research on outness is the distinction between being out about an identity and actively concealing that identity – typically defined as the need to use strategies such as lying and evasion to keep people from learning about the identity (e.g., Ilic et al., 2014; Link, 1987). On the surface, outness and active concealment may seem like two sides of the same coin: people who are more out about a certain identity likely need to actively conceal that identity less frequently. Outness and the active concealment of stigmatized identities, however, are rarely measured within the same study (cf. Riggle et al., 2017). We hypothesized that it may be the need to actively conceal information about the self from others – through social isolation, outright lying, and omission – that is the crucial mechanism whereby concealment takes a psychological and physical toll.

The current study pits outness against active concealment in predicting self-reported physical and psychological quality of life for a sample of adults who reported possessing one of three socially stigmatized identities: mental illness, chronic physical illness, or minority sexual orientation. We hypothesized that active concealment would more strongly predict physical and psychological quality of life, and that this relationship would be similar across all three concealed identities.

* Corresponding author.
E-mail address: diane.quinn@uconn.edu (D.M. Quinn).
[1] Psychological Sciences, University of Connecticut, 406 Babbidge Rd, Storrs, CT, 06269-1020.
[2] Now at Department of Psychology, California State University, Long Beach, 1250 Bellflower Boulevard, Long Beach, CA, 90840-0901.

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1. Method

1.1. Participants and procedure

Participants were recruited through Amazon's Mechanical Turk (Buhrmester et al., 2011; Shapiro et al., 2013). Participants were told they could earn up to $1 for completing the 10-min survey. Research procedure was approved by the human subjects institutional review board at the University of Connecticut. Participants completed a large checklist concerning various identities and life experiences. To qualify for the study, participants had to complete the survey within the U.S. indicate that they were over 18, were currently employed or had been employed within the last two years, and possessed a mental illness (e.g., major depression, anxiety disorder), chronic physical illness (e.g., diabetes, multiple sclerosis), or minority sexual orientation (e.g., gay/lesbian, bisexual). They also had to pass a basic attention check. Using these criteria, 1265 participants did not qualify and did not complete the survey. Qualified participants completed a survey measuring active concealment, outness, and quality of life, as described below. If participants indicated possessing multiple identities, they were asked to choose the identity that was most important to them, and that identity was referenced throughout the survey.

In total, 288 participants qualified and completed the survey—106 reported on their mental illness, 113 reported on their chronic illness, and 69 reported on their minority sexual identity. Participants' age ranged from 19 to 76 years ($M = 36.70$, $SD = 11.54$). The median income was between $40,000–49,999. The median education attainment was a bachelor's degree. The sample was slightly more female (57%) and was primarily White (82%), followed by African American (16%), Asian (8%), Latino/a (6%), Native American (2%), and Other/Multiple (4%).

1.2. Measures

1.2.1. Outness

Two common measures of outness were included. First, a single-item general outness measure (Martin and Dean, 1990) that asked respondents to indicate on a 1-to-5 scale the extent to which they were "completely in the closet − almost nobody knows about the identity" (1) to "completely out of the closet − almost everybody knows about the identity (5; $M = 2.96$, $SD = 1.29$). Second, a measure that asked respondents to indicate the extent to which they were out to eight specific others (Mohr and Fassinger, 2000) on a scale from "Doesn't know at all" (1) to "Knows and we've talked about it" (5). Averaged together, the eight items for outness to specific others displayed good internal reliability ($\alpha = 0.87$; $M = 3.80$, $SD = 1.03$). As expected, the two outness measures were positively correlated, $r = 0.59$, $p < 0.001$.

1.2.2. Active concealment

To measure active concealment, we adapted items from multiple scales focused on concealing mental illness (Ilic et al., 2014; Link, 1987) and minority sexual orientation (e.g., Anderson et al., 2001; Button, 2004) to allow people with any concealable identity to respond. The initial scale consisted of 19 items aimed at measuring the frequency with which people used different strategies for concealing a stigmatized identity, answered on 1 (*never*) to 5 (*always*) scales. Because this scale had never been used before, we conducted an exploratory principal components factor analysis with varimax rotation. Inspection of the scree plot, component matrix, and Eigenvalues showed one large and reliable factor composed of 15 of the 19 items, with an Eigenvalue of 8.63, accounting for 43% of variance—each of the 15 items had a factor loading over 0.6. The four remaining items loaded across three different factors, and thus, were dropped. The final 15-item scale displayed excellent internal reliability ($\alpha = 0.94$; item-total correlations ranged from 0.59 to 0.79). The 15 active concealment items are displayed in Table 1, including item means and standard deviations. Participants were randomly assigned to respond to the active concealment items in one of three contexts—in the workplace, when with friends and acquaintances, or in general—but in the interest of brevity for this report, all analyses in the current study collapsed across context.

1.2.3. Quality of life

Participants' physical and psychological quality of life (QOL) was measured using the WHOQOL-BREF (WHOQOL Group, 1998). The physical QOL subscale consists of seven items and displayed good internal reliability in the current sample ($\alpha = 0.87$, $M = 3.67$, $SD = 0.80$); the psychological subscale consists of six items and displayed good internal reliability in the current sample ($\alpha = 0.88$, $M = 3.32$, $SD = 0.87$).

2. Results

2.1. Bivariate correlations

As would be expected, active concealment was negatively correlated with both measures of outness (general outness, $r = -0.44$, $p < 0.001$; outness to specific others, $r = -0.43$, $p < 0.001$), signifying that people who are more out to others use active concealment strategies less frequently. Also, as predicted, active concealment was negatively correlated with physical ($r = -0.21$, $p < 0.001$) and psychological ($r = -0.32$, $p < 0.001$) QOL. General outness did not correlate with either QOL outcome. Outness to specific others was only correlated with psychological QOL, $r = 0.14$, $p = 0.017$. This mirrors the findings in the literature that outness tends to show a small, but inconsistent, relationship with health.

2.2. Regression analyses

Two linear regression models, predicting physical and psychological QOL were run. In each, we entered demographic variables in the first step of the model, the two outness variables in the second step, and the active concealment variable in the third step. As shown in Table 2, the outness variables did not account for a significant amount of variance (individually or as a block) in physical QOL. However, as hypothesized, active concealment was a significant predictor: People who reported more frequent concealment also reported worse physical QOL. The pattern for psychological QOL was similar. The two outness variables as a block accounted for an additional 2% of variance, which was marginally significant. As hypothesized, people who reported more active concealment also reported worse psychological QOL.

2.3. Moderator analyses

Next, we examined whether the pattern of results above—more active concealment predicting worse QOL—varied as a function of identity group (i.e., moderation) using Hayes's SPSS PROCESS macro (2013). Using all of the same covariates and direct effects as the regression models above, results indicated that the negative relationship between active concealment and psychological QOL did not significantly differ by identity group—more active concealment predicted worse psychological QOL for people reporting on mental illness, chronic physical illness, and minority sexual orientation. The relationship between active concealment and physical QOL, however, did significantly differ by identity group, $F(1, 275) = 2.58$,

Table 1
Active concealment items, means, and standard deviations.

Item	*Mean* (*SD*)
1. When I do go to social events, I am careful not to let my guard down so I don't give away the fact that I have my [*CSI*].	2.43 (1.29)
2. To keep my [*CSI*] hidden, I use vague language when talking about my personal life.	2.38 (1.21)
3. I lie about how I spend my free time so that nobody suspects that I have my [*CSI*].	2.07 (1.18)
4. I avoid becoming too close to people so that they don't ask personal questions that may give away the fact that I have my [*CSI*].	2.23 (1.21)
5. In order to hide my [*CSI*], I just try to blend in with other people.	2.92 (1.34)
6. I avoid social activities so that people don't find out about my [*CSI*].	2.27 (1.27)
7. I don't do anything special to hide my [*CSI*] because if someone asked me about it, I would just tell them the truth. **Reversed**	3.29 (1.41)
8. If I am going to an appointment, meeting, or get-together related to my [*CSI*], I make up some other reason for my whereabouts so that people don't know where I'm going.	2.21 (1.32)
9. If I think the topic of [*CSI*] is going to come up in conversation, I try to steer the conversation in a different direction	2.55 (1.24)
10. If the topic of conversation is about people with my [*CSI*], I find something else to do so that I don't have to be part of the conversation.	2.42 (1.13)
11. I try to act just the opposite of the way people with my [*CSI*] are "supposed" to act.	2.56 (1.29)
12. If the topic of conversation is about people with my [*CSI*], I join in and pretend I don't have a [*CSI*].	2.19 (1.17)
13. If the topic of conversation is about people with my [*CSI*], I just keep quiet and say nothing.	2.77 (1.16)
14. I try not to behave in ways that are typical of people with my [*CSI*].	2.97 (1.27)
15. To keep my [*CSI*] hidden, I avoid becoming Facebook friends (or other social media) with certain people.	1.98 (1.28)
Overall Scale	**2.44 (0.91)**

Note. CSI = Concealable stigmatized identity. "CSI" is used as a placeholder for the purposes of this table—participants responded to these items with the specific stigmatized identity that they possessed (mental illness, chronic illness, or minority sexual orientation). If participants indicated that they possessed more than one of the three target identities, they responded to these items with the identity they indicated was most important to them.

Table 2
Active concealment and outness predicting physical and psychological quality of life (QOL).

	Physical QOL				Psychological QOL			
	Step 1	Step 2	Step 3	Δ R^2	Step 1	Step 2	Step 3	Δ R^2
	β	β	β		β	β	β	
Step 1				0.05**				0.04
Age	-0.04	-0.04	-0.07		0.10	0.08	0.05	
Race	0.06	0.06	0.07		0.03	0.05	0.06	
Gender	-0.19**	-0.19**	-0.18**		-0.04	-0.05	-0.04	
Education	0.04	0.04	0.04		0.04	0.05	0.05	
Income	0.06	0.07	0.05		0.13*	0.13*	0.11	
Step 2				0.001				0.02+
General Outness		0.03	-0.05			0.04	-0.06	
Outness to Specific Others		-0.02	-0.09			0.12	0.05	
Step 3				0.06***				0.07***
Active Concealment			-0.28***				-0.32***	
Total R^2				**0.11*** **				**0.13*** **

Note: ***p < 0.001, **p < 0.01, *p < 0.05, +p = 0.05.

$p = 0.01$. Specifically, examination of conditional effects revealed that more active concealment predicted worse physical QOL for people reporting on mental illness (b = −0.35, $p < 0.001$), and chronic physical illness (b = −0.33, $p < 0.001$), but not minority sexual orientation (b = −0.01, $p = 0.93$).

3. Discussion

In a group of adults reporting on their experiences with mental illness, chronic physical illness, or minority sexual orientation, we found that actively concealing the identity more frequently—with strategies such as keeping a social distance from others, lying about identity-related appointments or meetings, and avoiding conversations about the concealed identity—was predictive of worse physical and psychological quality of life. These effects occurred over and above levels of outness to others, which did not predict quality of life once the effect of active concealment was gauged. Effects of active concealment on quality of life were consistent across the three identities, with one exception: The relationship between active concealment and physical quality of life was not

significant for the minority sexual orientation group. This was particularly surprising given the majority of research on concealment strategies has been focused on people concealing their minority sexual orientation (e.g., Riggle et al., 2017).

Examining active concealment to predict quality of life should be replicated with additional stigma identity groups, national samples, and objective health measures. These initial results, however, highlight new intervention points for reducing the effects of stigma on health and well-being. Instead of focusing on the extent of disclosure, research could examine social contexts for when and why people feel the need to actively conceal their identities from others and look for ways to reduce social jeopardy felt in those situations. In addition, given the voluminous research on the negative health effects of loneliness and social isolation (Cacioppo and Hawkley, 2003), it may make more sense to focus on reducing social isolation for people with concealed identities, rather than specific disclosure strategies to improve health. Given the number of people affected by concealable stigmatized identities, even small improvements in quality of life could have large effects on health at the population level (Hatzenbuehler et al., 2013). Understanding the need and frequency to actively conceal is a positive first step.

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