

Social comparison activity in coping with HIV

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Summary: Taylor and Lobel's (1989) model of social comparison processes under threat predicts that upward affiliation (a social activity) may be useful to improve the skills and to find inspiration in coping with HIV, whereas downward evaluation (a cognitive activity) may assist someone to feel better by comparing oneself to a less fortunate person. Participants with HIV were randomly assigned, using a 3 × 3 factorial design, to read one of nine vignettes about someone whose HIV medical prognosis and psychological adjustment were described as good, poor or unspecified. Participants desired upward affiliation with a target doing well physically, but they wanted to avoid a target doing poorly psychologically. Participants also evaluated their own physical condition as better than a target coping poorly physically with HIV. The results may be useful in understanding the impact of various role models in coping with HIV.

Keywords: coping with HIV, social comparison, Taylor & Lobel's social comparison model, upward affiliation, downward comparison, role models

In coping with the uncertainty of major health problems, people may compare themselves to others with the same disease to see how well they are either coping physically and/or psychologically. This phenomenon is termed as *social comparison activity*¹ and it has implications for how individuals cope with HIV. This paper examines how exposure to information about a target person with HIV, who is either coping well or poorly both physically and/or psychologically, influences the psychological functioning of someone with HIV.

Taylor and Lobel² argue that there are different motivations for social comparison that influence the mode of comparison (seeking interaction and/or information about another person versus evaluating one's own health in comparison to another person's health) as well as who is selected as the target for comparison (someone doing better or worse than oneself in coping with a disease). Upward contact (seeking interaction and information from someone who is coping better than oneself) may be preferred to satisfy *motives for problem-solving* (developing skills in behaviourally managing the disease) and *personal improvement* (finding hope and inspiration in coping with one's own disease progression). On the other hand, downward contact (seeking interaction and information from someone who is coping worse than oneself) may be avoided because interaction with less fortunate patients is not perceived as useful for problem-solving or inspiring hope. Downward evaluation (comparing oneself to real or imagined others who are doing worse than oneself in coping with a disease) may be preferred to satisfy *the motivation for ego enhancement* (feeling better about oneself by constructing an image that others are doing worse). In contrast, upward evaluation (comparing oneself to others who are better off in coping with a

disease) may be avoided because it is an unwelcome reminder² that one is doing less well than many other patients.

We tested Taylor and Lobel's² model of social comparison activity among patients diagnosed with HIV. Hypothesis 1 predicts that people with HIV will have a greater desire to affiliate and acquire information about someone with HIV who is coping well instead of poorly. This preference for upward affiliation derives from needs to satisfy problem-solving and self-improvement motives. Hypothesis 2 predicts that people with HIV will rate their own condition more favourably after being exposed to information about someone with HIV who is coping poorly instead of well. This preference for downward evaluation satisfies the need for ego enhancement.

The research also examined how social comparison activity depends on the *dimension* of comparison. Participants were presented with information about an HIV patient who was either coping well or poorly both physically and psychologically. Q2 According to Stanton *et al.*³ a preference for upward contact and/or avoidance of downward contact is more likely when information is available about the other patient's psychological (a more controllable outcome) instead of his or her medical diagnosis (a less controllable outcome). On the other hand, downward evaluation is more likely in response to information about the other patient's medical diagnosis instead of his or her psychological adjustment. An uncontrollable outcome associated with a medical diagnosis may evoke a stronger need to satisfy the ego enhancement motive and hence a more favourable response about one's own medical condition after learning about someone who is coping poorly instead of well physically.

METHODS

Participants

A total of 183 participants were recruited from HIV service organizations in Virginia and New Jersey, including 98 men,

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77 women and eight persons who did not identify their gender. They were asked to complete a questionnaire about their 'thoughts and feelings about someone coping with HIV.' The average age of participants was 41.63 (SD = 6.85). Most were African-American (71.0%) or Caucasian (12.6%). Participants reported living with HIV on an average of 109.72 months (SD = 70.40) or 11.11 years. Sixty-three participants (34.4%) had been diagnosed with AIDS; 109 (59.6%) did not have an AIDS diagnosis. Eleven (6.0%) did not provide information about an AIDS diagnosis.

When asked to describe their health, 20 participants (10.9%) rated it as 'excellent,' 52 (28.4%) as 'very good,' 61 (33.3%) as 'good,' 43 as average 'fair' (23.5%), and 4 (2.2%) as 'bad.' Three participants (1.6%) did not answer this question. On an 11-point scale rating current health (from 0 = 'Death or worst possible health' to 10 = 'Perfect or best possible health'), the average participant rated her or his current health as 7.05 (SD = 1.93).

Research design and procedures

Participants first completed a demographic questionnaire. Then, they were randomly assigned to read one of nine different interviews about someone who had been diagnosed with HIV one year ago. The nine interviews reflected a 3×3 factorial design based on the manipulation of two independent variables: the target's physical prognosis (good, poor or unspecified) and the target's psychological adjustment (good, poor or unspecified). Participants next completed ratings on manipulation checks as well as major dependent measures. The design, procedures and measures were adapted from research originally conducted by Stanton *et al.*³ to study the social comparison activity among breast cancer patients.

Manipulation of the independent variables

The medical diagnosis independent variable manipulation was based on the written information provided to the participants about the target's physical health. There was no information given about the target's gender. In the good medical prognosis condition, participants read that the target person was in good health now and expected to be in good health for a long time. In the poor medical prognosis condition, the target person was described as in poor health now and not expected to get better in the future. In the unspecified medical condition, there was no specific information given about how well or poorly the target person was coping physically. The input for this control condition provided a baseline to assess the impact of good and poor medical prognosis against a control condition.

The psychological adjustment independent variable manipulation was based on the information provided about the target's mental health. In the good psychological adjustment condition, the target person was described as coping well and hopeful about the future. In the poor psychological adjustment condition, the target person was described as coping poorly, including crying a lot and not hopeful about the future. In the unspecified psychological adjustment condition, there was no specific information given about how well or poorly the target person was coping psychologically.

Dependent measures

Ratings of desire for general affiliation, emotional support, and information about the target person

Ratings on these measures were based on responses to a 13-item questionnaire constructed by Stanton *et al.*³ Reactions were made along 5-point continua, ranging from 1 = 'not at all' to 5 = 'definitely.' The general affiliation scale included four items (e.g. 'I would like to talk with this person about my experience'); $\alpha = 0.83$. The desire for emotional support scale included six items (e.g. 'I would seek emotional support regarding HIV from this person'); $\alpha = 0.94$. The desire for information scale included three items (e.g. 'I would seek this person for advice if I had a problem related to HIV'); $\alpha = 0.87$. Scale scores were based on the average across the items that composed a scale.

Ratings of target person's likeability

The likeability measure was based on averaging responses to a list of 14 personality-trait words.⁴ Ratings were made along five-point scales to indicate how much the target possessed various characteristics (e.g. 'understanding,' 'intelligent'); α s = 0.96. Data on affiliative, emotional support and information seeking preferences as well as likeability were used to test Hypothesis 1.

Self-evaluative ratings

After participants read one of the nine interviews, they next completed two items (along 5-point scales) comparing their own physical and psychological coping, respectively in comparison with the target person. This data was used to test Hypothesis 2.

RESULTS

Preliminary analyses

There were no differences among the treatment conditions on most demographic variables (e.g. age, education, sexual orientation, length of time living with HIV, AIDS diagnosis). However, there were differences among participants in self-rating of general health as a function of the medical prognosis independent variable manipulation, $F(2, 172) = 3.01$, $P < 0.05$. There was also a high correlation between the general health and the current health indices ($r = 0.66$). Thus, a decision was made to combine scores on the general and current health measures into a composite index and use it as a covariate in the tests of the hypotheses.

Manipulation checks on the independent variables

Analyses were conducted to verify the effectiveness of the independent variable manipulations. On the rating of the target's physical condition, from 1 = 'very good physical condition' to 5 = 'very bad physical condition,' there was a medical prognosis main effect, $F(2, 160) = 11.52$, $P < 0.001$. Participants rated the target in better physical health in the good ($M = 2.45$, $SE = 0.15$) than in the poor ($M = 3.43$, $SE = 0.16$) medical diagnosis condition, $P < 0.001$. The target was also rated in better physical health in the unspecified ($M = 2.68$, $SE = 0.16$) than in the poor medical prognosis condition, $P < 0.01$. There was no significant difference in participants' perceptions of

the target's physical health between the good and the unspecified HIV prognosis condition.

On the rating of the target's psychological adjustment, from 1 = 'not at all distressed or upset' to 5 = 'very distressed or upset,' there was a HIV psychological adjustment main effect, $F(2, 161) = 15.22, P < 0.001$. Participants rated the target as less distressed in the good ($M = 2.63, SE = 0.11$) than in the poor ($M = 3.80, SE = 0.16$) psychological adjustment condition. The target was also rated as less distressed in the unspecified ($M = 2.88, SE = 0.17$) than in the poor psychological adjustment condition, $P < 0.001$. However, there was no significant difference in the ratings of the target's distress between the good and the unspecified psychological adjustment conditions.

Testing the hypotheses

A series of 3×3 (target medical prognosis by target psychological adjustment) analyses of covariance were conducted on the dependent measures. Planned contrasts (consistent with the hypotheses being tested) were also conducted to examine the specific differences among the treatment groups. Reported means are adjusted for the covariate.

Hypothesis 1 (consistent with the motives for problem-solving and self-improvement) predicted that people with HIV would desire to affiliate with and acquire information about someone coping well instead of poorly with HIV. There were no statistically significant HIV medical prognosis main effects on the affiliation-related measures (i.e. desire for general affiliation, emotional support, information seeking and likeability measures). But, simple contrasts indicated that participants wanted more emotional support from the target in the good than in the unspecified medical prognosis condition ($P < 0.05$); they also perceived the target as more likeable in the good than in the unspecified medical prognosis condition ($P < 0.05$). There were no significant differences on any of the affiliation-related measures in the simple contrasts between the good versus the poor medical prognosis or between the unspecified versus the poor medical prognosis conditions (Table 1).

Focusing on the psychological dimension of coping, there were statistically significant psychological adjustment main effects on the desire for emotional support ($F[2, 128] = 7.90, P < 0.01$) and information ($F[2, 126] = 4.97, P < 0.01$) from the target. Simple contrasts indicated that the participants desired more emotional support in the good than in the poor psychological adjustment condition ($P < 0.01$); and they also wanted more information from the target in the good than in the poor psychological adjustment condition ($P < 0.01$).

Table 1 Effects of target's medical prognosis on the affiliative measures

Dependent measure	Target's physical prognosis					
	Good		Poor		Unspecified	
	Mean	SE	Mean	SE	Mean	SE
Affiliation	3.60 _a	0.14	3.72 _a	0.16	3.27 _a	0.16
Emotional support	3.10 _a	0.16	3.03 _b	0.18	2.58 _b	0.19
Likeability	3.67 _a	0.13	3.54 _b	0.15	3.20 _b	0.15
Information	3.00 _a	0.18	2.86 _a	0.20	2.60 _a	0.20

Note: Means with different subscripts differ significantly from one another at $P < 0.05$, based on special contrasts

Table 2 Effects of target's psychological adjustment on the affiliative measures

Dependent measure	Target's physical prognosis					
	Good		Poor		Unspecified	
	Mean	SE	Mean	SE	Mean	SE
Affiliation	3.50 _a	0.15	3.71 _a	0.15	3.38 _a	0.15
Emotional support	3.21 _a	0.18	2.34 _b	0.17	3.16 _a	0.18
Likeability	3.63 _a	0.14	3.32 _a	0.14	3.45 _a	0.15
Information	3.11 _a	0.19	2.34 _b	0.19	3.00 _a	0.19

Note: Means with different subscripts differ significantly from one another at $P < 0.05$, based on special contrasts

Simple contrasts also indicated significant differences between participants in the unspecified versus the poor adjustment conditions on the emotional support ($P < 0.01$) and the information ($P < 0.05$) measures. Participants wanted less emotional support from the target in the poor than in the unspecified adjustment condition; they also wanted less information from the target in the poor than in the unspecified adjustment condition. See Table 2.

Hypothesis 2 (consistent with the motive for ego enhancement) predicted that participants would rate their condition as better when exposed to information about another patient who was coping poorly rather than well with HIV. Focusing on the physical dimension, there was a medical prognosis main effect, albeit marginally significant, on the participant's rating of their own HIV-related physical condition in comparison with the HIV-related physical condition of the target person, $F(2, 158) = 3.06, P = 0.05$. Simple contrasts indicated that the participants rated themselves as doing better physically than the target person in the poor ($M = 3.90, SE = 0.13$) than in the good ($M = 3.51, SE = 0.13$) medical prognosis condition, $P < 0.05$. Participants also rated themselves as doing better physically than the target person in the poor than in the unspecified ($M = 3.49, SE = 0.14$) medical prognosis condition, $P < 0.05$. There were no differences in participants' ratings of how well they were doing physically in comparison with the target between the good versus the unspecified medical prognosis condition.

There was no psychological adjustment main effect on participants' ratings of how well they were coping with the emotional stress of HIV in comparison with the target person, $F(2, 153) = 1.74, ns$. Simple contrasts also were nonsignificant in how the participants rated their psychological coping in comparison with the target among the psychological adjustment treatment conditions.

DISCUSSION

In support of Hypothesis 1, there was evidence for upward affiliation on the physical dimension: Participants wanted more emotional support and liked someone with HIV more who was coping well physically compared with someone whose HIV-related physical health was unspecified. But, there was also evidence for the avoidance of downward contact on the psychological dimension. Although participants desired emotional support and information from someone coping well emotionally instead of poorly, they did not want to affiliate with someone doing poorly compared with someone in the control condition

on the psychological dimension. Interestingly, *desire for general affiliation* was not influenced by the psychological adjustment or the medical prognosis independent variables.

In support of Hypothesis 2, there was evidence for downward evaluation on the physical, but not on the psychological dimension of social comparison. Participants perceived that they were doing better physically after reading about the target person who was doing poorly as opposed to well physically. But, this benefit derived mainly from reading about someone doing badly on the physical dimension compared with the control condition. Exposure to information about the target doing well physically compared with the control condition did not make participants perceive that they were doing worse physically.

Overall, these findings support Taylor and Lobel's² theory of social comparison and are consistent with other research indicating that people with major diseases (including breast cancer and diabetes) react differently to someone coping well or poorly based on their personal needs to problem solve and to feel good about oneself.^{3,5}

Limitations

The control groups (unspecified medical prognosis and unspecified psychological adjustment conditions) were supposed to provide a baseline in examining changes in affiliation preferences and downward/upward evaluations for participants exposed to information that the target was doing well or poorly on the physical and/or psychological dimensions. Unfortunately, the baselines did not differ from the good medical prognosis and the good psychological adjustment conditions on the manipulation checks. Hence, we must be somewhat cautious about the nature of effects involving upward affiliation and/or upward evaluation in the current study. It would be important in future research to document that

the control conditions were in fact perceived as intermediate between the good and poor coping conditions on the physical and psychological dimensions in order to draw definitive conclusions about the effects of social comparison on upward/downward affiliation and upward/downward evaluation.

Implications

The findings may be useful in understanding the effects of various role models in coping with HIV.⁶ Patients may be eager to learn skills or become inspired by someone doing well physically, but they may not see the benefit from interacting with someone who is coping poorly psychologically. Patients may also feel better about their own physical condition being given information that some individuals are doing worse than themselves physically. As long as patients with HIV do not see their own physical decline as inevitable, downward evaluations on the physical dimension may be beneficial.

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