Personality and Individual Differences 55 (2013) 85–89

Contents lists available at SciVerse ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Adaptive midlife defense mechanisms and late-life health

Johanna C. Malone *, Shiri Cohen, Sabrina R. Liu, George E. Vaillant, Robert J. Waldinger

Harvard Medical School and Massachusetts General Hospital, Boston, Massachusetts, United States

ARTICLE INFO

Article history:
Received 30 October 2012
Received in revised form 28 January 2013
Accepted 29 January 2013
Available online 19 March 2013

Keywords:
Personality
Defense mechanisms
Defense maturity
Coping
Social support
Physical health

ABSTRACT

A growing body of research suggests that personality characteristics relate to physical health; however, this relationship has primarily been tested in cross-sectional studies that have not followed the participants into old age. The present study utilizes data from a 70-year longitudinal study to prospectively examine the relationship between the adaptive defense mechanisms in midlife and objectively assessed physical health in late life. In addition to examining the direct effect, we test whether social support mediates this relationship. The sample consisted of 90 men who were followed for over seven decades beginning in late adolescence. Health ratings from medical records were made at three time points (ages 70, 75, and 80). Defense mechanisms were coded from narratives by trained independent raters (Vaillant, Bond, & Vaillant, 1986). Independent raters assessed social supports between ages 50 and 70. More adaptive defenses in midlife were associated with better physical health at all three time points in late life. These relationships were partially mediated by social support. Findings are consistent with the theory that defense maturity is important for building social relationships, which in turn contribute to better late-life physical health. Psychological interventions aimed at improving these domains may be beneficial for physical health.

1. Introduction

Defense mechanisms refer to largely unconscious or automatic efforts to maintain psychological stability in the face of internal and external stressors through the modification of how reality is perceived (Cramer, 1998, 2000; Vaillant, 1971, 1994). Some defenses are thought to be adaptive whereas others may be more problematic, leading to difficulties in one's emotional life and environment. For example, more adaptive defenses are linked to better relationships, work satisfaction, mental health, and subjective well-being, whereas less adaptive defenses are linked to poorer mental health, work problems, and difficulty in relationships (Larsen et al., 2010; Vaillant, 1976, 1977, 1978; Vaillant & Mukamal, 2001). A small body of literature suggests that defense mechanisms may also have important consequences for an individual's physical health (Flannery & Perry, 1990; Olff, Brosschot, & Godaert, 1993; Soldz & Vaillant, 1998; Vaillant, 1993). However, the ways that defenses affect physical well-being are incompletely understood (Olff, 1999). Research suggests that social support may be an important factor, as it has been linked empirically with both physical health (Uchino, Cacioppo, & Kielcot-Glaser, 1996) and personality functioning (Vaillant, 2000).

In the present study we seek to clarify this relationship through examining how midlife defense mechanisms may predict better health in late life via the presence of greater social support. The data are drawn from a longitudinal study of adult development spanning over seven decades (Vaillant, 2000). This research has implications for understanding targets of psychosocial intervention that influence physical well-being in older adults. The current pandemic of chronic preventable disease among middle-aged and older adults lends particular urgency to the search for potentially modifiable factors that are linked with physical health (National Center for Health Statistics, 2011).

To date there is little research on how more adaptive defense mechanisms relate to health in older adults. Old age presents unique challenges, as individuals approaching the end of life experience increased health problems and face a variety of changes in their social support networks (Vaillant & Mukamal, 2001). In this study we hypothesized that midlife adaptive defenses may enable individuals to form strong relationships that set the stage for healthier aging in the seventh and eighth decades of life.

1.1. Mechanisms of defense

The concept of defenses originated from the psychoanalytic tradition referring to both adaptive and maladaptive mechanisms for coping with experiences that challenge one's emotional equilibrium (Freud, 1894, 1926, 1936). These habitual styles of emotion-focused coping often operate automatically outside of the person's

* Corresponding author. Address: Massachusetts General Hospital, Department of Psychiatry, One Bowdoin Square, 701, Boston, MA 02114, United States. Tel.: +1 617 726 9687.
E-mail addresses: johanna.malone@gmail.com, jmalone@msu.edu (J.C. Malone).

0191-8869/$ - see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.paid.2013.01.025

awareness (Lazarus & Folkman, 1984; Vaillant, 2000). Defenses are typically classified hierarchically by levels of maturity. Mature defenses (e.g., sublimation, suppression, anticipation, altruism, humor) are prominent in those with greater levels of success in work and relationships and lower levels of psychopathology; intermediate or neurotic defenses (e.g., displacement, repression, reaction formation) are less adaptive but are found across all levels of life functioning; whereas immature defenses (e.g., projection, passive aggression, acting out, denial) are associated with difficulty regulating, expressing, and understanding emotional experiences (American Psychiatric Association, 2000; Segal, Coolidge, & Mizuno, 2007; Vaillant, 2000; Vaillant, Bond, & Vaillant, 1986).[1]

Mature defenses allow better modulation of distress while maintaining engagement with reality. For example, when coping with illness, a person may recognize that she is distressed but adaptively manage the feelings through pursuing an artistic endeavor (i.e., sublimation) or being purposefully circumscribed when thinking about effects of the illness (e.g., at doctors appointments, when receiving care from a loved one, while engaging in health-maintenance behaviors) therefore relying on suppression. Mature coping mechanisms such as humor and altruism (e.g., volunteering in an organization for people who are also struggling) diminish the emotional impact of distress, also while keeping those individuals better engaged with reality. In contrast, another person may use the less mature defense of denial, blocking out any feelings of distress and actively working to avoid thinking or talking about the illness (e.g., skipping appointments, not acknowledging the extent of the severity or health implications of the condition, refusing care from loved ones) leading to unexpressed emotional distress as well as poor self-care.

1.2. Personality and health outcomes

Although there are relatively few studies of defense mechanisms and physical health, important cross-sectional links have been identified (Eriksen, Olff, & Ursin, 1997; Flannery & Perry, 1990; Olff et al., 1993). For example, Albuquerque et al. (2011) found that patients with chronic obstructive pulmonary disorder were more likely than healthy controls to have immature and neurotic defenses, and that immaturity of defenses related to lower health-related quality of life and greater perceived severity of symptoms. In a longitudinal study of midlife defenses and physical health in men from lower socioeconomic strata, Vaillant (2000) found that maturity of defenses in midlife (prior to age 47) predicted lower self-reported level of physical disability at age 65. This relation held when restricting analyses to men who were healthy by objective report at age 50.

Previous research with the current longitudinal sample found that men who relied on immature defenses as young adults (age 20–47) manifested increasing prevalence of objectively-assessed chronic, irreversible health problems from age 30 to 60 (assessed at 5 year intervals), when compared to those utilizing more adaptive defenses (Vaillant, 1993). However, this relationship between early adult defense maturity and health was no longer present after age 65. More specifically, more adaptive defenses prior to age 47 predicted subjective physical functioning at age 65, but not objective physical health (Vaillant & Vaillant, 1990).

The present work extends the examination of this longitudinal cohort by focusing on defenses assessed in midlife (age 47–63) in relation to late-life health as assessed from medical records. Unlike early-adult defenses, which were unrelated to late-life health (Vaillant, 1993), we hypothesized that defenses utilized in greater temporal proximity to late life (i.e., midlife) would be associated with objective late-life health outcomes. Since defenses are not static phenomena but may change as individuals age based on experiences and relationships (Vaillant, 1977), a lifespan perspective on personality development may be helpful in understanding the relationship of more adaptive defenses to health.

1.3. Social support as a mediator

Smith and Spiro (2002) posit that personality leads individuals to choose social contexts that are either health-promoting or health-reducing. Using this developmental lifespan approach, we hypothesized that social support would mediate links between personality and late-life physical health. According to this model, adaptive defense mechanisms lead to enhanced social supports, which ultimately lead to better physical health outcomes in older adulthood.

In samples of older adults, certain personality characteristics are associated with use of social support. Cukrowicz, Franzese, Thorp, Cheavens, and Lynch (2008) suggest that among depressed older adults both extraversion and conscientiousness may protect individuals from withdrawing from relationships. These traits may correspond to defenses that enable individuals to connect to their environments as they face stressors associated with aging. In our own longitudinal study, for example, adaptive mechanisms of defense measured in young adulthood (age 20–47) are positively correlated with greater social support at age 70 ($r = .34$, $p < .001$; Vaillant, 2000).

Results of numerous studies consistently indicate that social support influences physical health outcomes (Berkman, Glass, Brissette, & Seeman, 2000; Uchino, 2009). Individuals with greater social support have lower rates of mortality from cardiovascular disease, cancer, and infectious disease (Brummett et al., 2001; Lee & Rotheram-Borus, 2001; Rutledge et al., 2004; Uchino, 2009). Perceived social support is associated with lower mortality rates, even when statistically controlling for baseline demographic factors and physical health status (e.g., Brummett et al., 2001).

The current study uses a composite measure of social support that considers closeness of family relationships, religious involvements, number of close confidantes, number of friends, and participation in other social activities. Using a similar approach, Golden, Conroy, and Lawlor (2009) found that social involvement was associated with lower levels of mental illness, cognitive impairment, and physical disability in adults over age 65. Our study is unique in that it prospectively examines social involvement and its effect on health at three different points in later life.

1.4. Aims of the present research

Building on past research, the current study examined whether adaptiveness of defenses in midlife is linked with physical health in late life, and if so, whether social support mediates this link. We hypothesized that adaptive mechanisms of defense would directly relate to greater social support between age 50 and 70 and better physical health at ages 70, 75, and 80, and that social support would at least partially explain the relationship between personality and health outcomes. We examined health outcomes at ages 70, 75, and 80 to investigate whether the hypothesized relations would be consistent across time or whether the natural decline of health that occurs with age would diminish the relevance of psychosocial variables.

[1] Readers interested in descriptions of individual defense mechanisms are referred to Vaillant (1971), Vaillant (1994, Vaillant (2000). It is notable that Vaillant (2000) differentiates adaptive suppression from the cognitive (and empirically ineffective) strategy of "thought suppression." Suppression in an adaptive form continues to allow conflict to exist in one's awareness and is not a complete rejection of a distressing thought.