# RELAÇÕES DAS CARACTERÍSTICAS PESSOAIS POSITIVAS COM O BEM-ESTAR

**Clarissa Pinto Pizarro de Freitas**

**Tese de Doutorado**

**Universidade Federal do Rio Grande do Sul**

**Instituto de Psicologia**

**Programa de Pós-Graduação em Psicologia**

Porto Alegre, 14 de janeiro de 2016

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**Clarissa Pinto Pizarro de Freitas**

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**Universidade Federal do Rio Grande do Sul Instituto de Psicologia**

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**RESUMO**

A presente tese agrupa quatro estudos que objetivam investigar as relações dos recursos pessoais com os índices de bem-estar dos indivíduos. Foi realizada uma revisão de literatura sobre a iniciativa ao crescimento pessoal, a fim de compreender em profundidade o construto de iniciativa ao crescimento pessoal. Posteriormente, foram desenvolvidos três estudos empíricos. O primeiro artigo empírico refere-se ao estudo de adaptação e avaliação das propriedades psicométricas da versão brasileira da Escala de Iniciativa ao Crescimento Pessoal – II (*Personal Growth Initiative Scale – II,* PGI-II). Foi observado que a versão brasileira da PGI-II constitui-se como um instrumento confiável para investigar os índices de disponibilidade para mudança, planejamento, comportamento intencional e uso de recursos, apresentando uma estrutura de quatro fatores de primeira ordem. O segundo artigo empírico avaliou se as relações das dimensões da iniciativa ao crescimento pessoal com os níveis de bem-estar subjetivo eram mediadas pela presença de sentido de vida. Foi observado que a presença de sentido de vida media o impacto das dimensões planejamento e comportamento intencional sobre os níveis de satisfação com a vida, afetos positivos e negativos. As dimensões disponibilidade para mudança e uso de recursos não estiveram relacionadas aos índices de presença de sentido de vida. As dimensões disponibilidade para mudança e uso de recursos estiveram negativamente associadas aos níveis de bem-estar subjetivo. O terceiro artigo empírico avaliou se as relações entre otimismo, pessimismo e autoestima com os índices de estresse, satisfação com a vida, afetos positivos e negativos eram mediados pelos níveis de presença de sentido de vida. Os resultados demonstraram que as relações entre o otimismo e autoestima com os índices de estresse, afetos positivos e negativos foram parcialmente mediados pelos níveis de presença de sentido de vida. Entretanto, as relações dos índices de pessimismo com estresse, satisfação com a vida, afetos positivos e negativos não foram mediados pelos níveis de presença de sentido de vida. Estudos futuros devem avaliar se as relações dos recursos pessoais com bem-estar subjetivo e estresse são replicáveis a outras amostras. A principal contribuição desta tese foi disponibilizar uma escala para investigar a iniciativa ao crescimento pessoal no contexto brasileiro. Além disso, os resultados deste estudo avançam o conhecimento sobre as relações entre os recursos pessoais e as dimensões de bem-estar.

**Palavras-chave:** Iniciativa ao Crescimento Pessoal, Presença de Sentido de Vida, Otimismo, Autoestima, Bem-estar Subjetivo, Estresse.

## ABSTRACT

This thesis join up four studies that aims to investigate the relationship of levels of personal resources with well-being of individuals. A literature review on the personal growth initiative was carried out in order to understand in depth the construct of personal growth initiative. Later, three empirical studies were developed. The first empirical paper refers to the study of adaptation and evaluation of the psychometric properties of the Brazilian version of the Personal Growth Initiative Scale - II (Personal Growth Initiative Scale - II, PGI-II). It was observed that the Brazilian version of PGI-II was established as a reliable instrument to investigate the levels of readiness for change, planfulness, intentional behavior and using resources, with a four first-order factor structure. The second empirical research evaluated if presence of meaning in life mediated the relationships of the dimensions of personal growth initiative with subjective well-being. It was observed that the presence of meaning in life measured the impact of dimensional planning and intentional behavior on levels of satisfaction with life, positive and negative affect. The dimensions readiness for change and using resources were not related to levels of presence of meaning in life. The dimensions readiness for change and using resources were negatively associated with levels of subjective well-being. The third empirical research has evaluated if presence of meaning in life mediated the relationships of optimism, pessimism and self-esteem with levels of stress, life satisfaction, positive and negative affect. The results showed that the relationship between optimism and self-esteem with levels of stress, positive affect and negative were partially mediated by levels of presence of meaning in life. However, the relations of pessimism with stress, life satisfaction, positive affect and negative were not mediated by levels of presence of meaning in life. Future studies should evaluate if the relations of personal resources with subjective well-being and stress are replicable to other samples. The main contribution of this thesis was to provide a scale to investigate the initiative to personal growth in the Brazilian context. In addition, the results of this study advance the understanding of the relationship between personal resources and well-being.


***Key-words:*** Personal Growth Initiative, Presence of Meaning in Life, Optimism, Self-esteem, Subjective Well-being, Stress.

# CAPÍTULO I
# INTRODUÇÃO

A Psicologia Positiva foi fundada como um campo de estudo em 2000 (Seligman & Csikszentmihalyi, 2000). O estabelecimento da Psicologia Positiva como um campo de estudo específico origina-se da necessidade de serem investigados os aspectos saudáveis do ser humano (Paludo & Koller, 2007; Snyder & Lopez, 2009). A Psicologia Positiva possui três pilares, as características pessoais positivas, as experiências e afetos positivos e as instituições e comunidades positivas (Snyder & Lopez, 2009). A tese apresentada objetiva investigar dois dos três eixos da Psicologia Positiva, são estes as características pessoais positivas e as experiências e afetos positivos.

A relevância de investigar as experiências e afetos positivos dos indivíduos pode ser observada ao notar-se que os índices de bem-estar subjetivo e estresse vivenciados pelos indivíduos impactam sobre suas condições de saúde (Gelkopf, Bergera, Bleicha, & Silverf, 2012; Pressman & Cohen, 2005). Observa-se que vivenciar altos índices de bem-estar subjetivo e baixos níveis de estresse pode atuar como um fator protetivo no processo de envelhecimento (Pressman & Cohen, 2005). De forma similar, a presença de altos índices de estresse está associada à adoção de um estilo de vida prejudicial à saúde (Gelkopf et al., 2012) e ao aumento do risco do agravamento de doenças crônicas, como câncer, asma e diabetes (Al−Dubai, Barua, Ganasegeran, Jadoo, & Rampal, 2014; Cohen, Janick-Deverts, & Miller, 2007). Tendo em vista as relações das características pessoais positivas, do bem-estar subjetivo e estresse, a presente Tese buscou avançar no conhecimento existente sobre as relações da iniciativa ao crescimento pessoal, autoestima, otimismo e pessimismo com os índices de bem-estar subjetivo (satisfação com a vida, afetos positivos e negativos) e estresse.

## Bem-estar Subjetivo

O bem-estar subjetivo (BES) refere-se às avaliações que as pessoas fazem sobre suas vidas, as quais podem ser positivas, sugerindo altos níveis de bem-estar subjetivo, ou negativas, indicando a presença de baixos índices de bem-estar subjetivo. Estas avaliações são

realizadas com base em uma avaliação cognitiva, composta pela satisfação com a vida, e afetiva, a qual se constitui pelos afetos positivos e negativos (Diener, 1984; Diener et al., 1999; Hutz, Midgett, Pacico, Bastianello, & Zanon, 2014).

A satisfação com a vida abrange o processo de julgamento das condições de vida em geral (Diener et al., 1999; Pavot, Diener, Colvin, & Sandvik, 1991). O processo de avalição das condições de vida que resultam no julgamento dos índices de satisfação com a vida é realizado por meio da comparação das condições de vida consideradas ideais, estabelecidas pelo indivíduo, com suas condições de vida reais (Lucas, Diener, & Suh, 1996).

A dimensão afetiva do bem-estar subjetivo é composta pelos afetos positivos e negativos (Diener & Lucas, 2000; Watson, Clark & Tellegen, 1988). Os afetos originam-se das percepções das pessoas sobre os eventos que vivenciam cotidianamente. Desta forma, as experiências julgadas de forma positiva promoverão uma predominância de afetos positivos em comparação aos afetos negativos, sendo o inverso verdadeiro também (Diener & Lucas, 2000; Hutz et al., 2014).

Os afetos positivos se relacionam a sentimentos agradáveis, ao engajamento positivo com as atividades e contexto em que a pessoa está inserida. Altos índices de afetos positivos configuram um estado de alta energia, concentração e engajamento, enquanto baixos índices destes são caracterizados por um estado de desânimo e letargia (Crawford & Henry, 2004; Watson et al., 1988).

Os afetos negativos, por sua vez, constituem um estado de sofrimento subjetivo e ausência de comprometimento e prazer no desenvolvimento das atividades. Desta forma, altos índices de afetos negativos originam sentimentos desagradáveis, tais como raiva, desprezo, medo e nervosismo. De modo contrário, os baixos índices destes caracterizam um estado de calma e serenidade (Crawford & Henry, 2004; Watson et al., 1988).

Os afetos positivos e negativos caracterizam-se como dimensões independentes, e não como dimensões opostas de um *continuum*. Desta forma, os indivíduos podem vivenciar simultaneamente altos índices de afetos negativos e positivos (Diener et al., 1999; Hutz et al.,

2014). Além disso, os afetos apresentam uma estabilidade temporal, apesar de serem influenciados por eventos cotidianos (Crawford & Henry, 2004; Lyubomirsky, King, & Diener, 2005).

**Estresse**

O estresse constitui-se como uma consequência da avaliação cognitiva dos indivíduos frente às situações estressoras que demandam a mobilização de algum tipo de enfrentamento (estratégias de *coping*) desses eventos (Lazarus, 1995; Lazarus & Folkman, 1984). Desta forma, o estresse ocorre quando os indivíduos avaliam que não possuem estratégias de *coping* eficientes e recursos (internos e externos) para lidar com as demandas originadas pelo enfrentamento de eventos avaliados como ameaçadores (Lazarus, 1995).

**Iniciativa ao Crescimento Pessoal, Autoestima, Otimismo e Pessimismo: Recursos Pessoais**

Ao se buscar compreender os níveis de bem-estar subjetivo e estresse dos indivíduos, observa-se a relevância de investigar as características pessoais positivas associadas a esses indicadore de bem-estar. As características pessoais positivas podem ser compreendidas como recursos pessoais. Considera-se adequado referir-se às características pessoais positivas como recursos pessoais, pois os recursos pessoais podem ser compreendidos como as habilidades e avaliações positivas do indivíduo sobre sua capacidade em controlar e produzir um impacto sobre seu ambiente. Estes recursos são intrínsecos, caracterizam-se como dimensões independentes, os quais não são fixos, podem ser desenvolvidos e são influenciados por mudanças no ambiente (Schaufeli, Dijkstra, & Vazquez, 2013). Evidências têm demonstrado que a presença de altos índices nos recursos pessoais, tais como o otimismo (Augusto-Landa, Pulido-Martos, & Lopez-Zafra, 2011), iniciativa ao crescimento pessoal (Freitas, Damásio, Tobo, Kamei, Haddad, & Koller, 2015), autoestima (Zhao, Wang, & Kong, 2014) e presença de sentido de vida (Damásio & Koller, 2015), colaboram para os indivíduos experenciarem altos índices de bem-estar subjetivo e baixos níveis de estresse.

Os estudos sobre otimismo têm avaliado o construto de duas formas. Na primeira perspectiva, o otimismo e o pessimismo são entendidos como dois traços de personalidade distintos, de modo que a presença de altos níveis de otimismo não equivale à ausência de pessimismo, apesar destes estarem relacionados (Carver & Scheier, 2014; Scheier, Carver, & Bridges, 2001). Enquanto na segunda perspectiva, a relação do otimismo com o pessimismo é compreendida em uma faixa contínua que varia de um polo de altos índices de otimismo ao polo oposto de baixos níveis de otimismo (Bastianello, Zanon, Pacico, Reppold, & Hutz, 2012).

O otimismo tem sido identificado como uma tendência da pessoa acreditar que suas experiências de vida serão positivas e que será bem sucedido no desenvolvimento de suas tarefas (Scheier & Carver, 1985; Scheier, Carver, & Bridges, 1994). Otimistas geralmente apresentam maiores índices de motivação para desenvolver as atividades necessárias para alcançar um objetivo, uma vez que apresentam maior probabilidade de avaliar positivamente o desfecho desta situação (Scheier & Carver, 1992). Pessoas com altos níveis de otimismo podem compreender que possuem maior controle sobre as situações enfrentadas, assim como sobre os resultados positivos de suas ações (Gillham, Shatté, Reivich, & Seligman, 2001).

O pessimismo caracteriza-se por uma tendência em avaliar o futuro de forma negativa, compreendendo que serão enfrentadas situações adversas e que os resultados de suas ações serão negativos (Carver & Scheier, 2001; Scheier et al., 2001). Esta avaliação negativa do futuro pode minar a motivação das pessoas, uma vez que podem considerar que não serão bem sucedidos no desenvolvimento de suas ações (Scheier & Carver, 1992). Diferentemente dos otimistas, os pessimistas podem perceber que o controle que eles possuem sobre suas ações é reduzido. Por exemplo, os pessimistas podem compreender que resultados positivos são devido à sorte ou oportunidades, e não resultado de suas ações (Gillham et al., 2001).

O otimismo, enquanto um construto que abrange uma faixa contínua do pessimismo ao otimismo, propõe que as pessoas que apresentam altos índices de otimismo realizam avaliações positivas sobre os desfechos de suas ações, assim como de experiências passadas

(Bastianello et al., 2012). Nesta perspectiva, o pessimismo é constituído pelos baixos índices de otimismo, sendo que os indivíduos com baixos níveis de otimismo apresentam uma tendência em avaliar negativamente o futuro, e geralmente acreditam que suas ações não alcançarão os resultados necessários (Hutz et al., 2014).

As habilidades de modificar crenças pessoais e comportamentos a fim de se adaptar a novos contextos e vivenciar índices de bem-estar subjetivo mais altos é identificada como Iniciativa ao Crescimento Pessoal (ICP, *Personal Growth Initiative*). A iniciativa ao crescimento pessoal caracteriza-se pelo envolvimento ativo e intencional dos indivíduos nos processos de mudança e desenvolvimento pessoal (Yakunina, Weigold, & Weigold, 2013).

As mudanças pessoais originadas pela ICP podem ser realizadas nos diferentes domínios da vida dos indivíduos, ocorrendo nas dimensões afetivas, cognitivas e comportamentais (Robitschek et al., 2012). Este recurso pessoal constitui-se pelas dimensões 'disponibilidade para mudança' (*e.g.*, identificar oportunidades para o crescimento pessoal), 'planejamento' (*e.g.*, organizar estratégias que possibilitem o desenvolvimento pessoal), 'comportamento intencional' (*e.g.*, motivação para desenvolver mudanças pessoais) e 'utilização de recursos' (*e.g.*, buscar auxílio para realizar as mudanças pessoais) (Robitschek et al., 2012).

A autoestima caracteriza-se como um fenômeno multidimensional e hierárquico, a qual se refere às percepções dos indivíduos sobre as suas capacidades, competências, e seu valor pessoal (Rosenberg, 1965). Desta forma, a autoestima constitui-se pelas avaliações do indivíduo sobre si mesmo, as quais podem ser positivas (*e.g.* altos índices de autoestima) ou negativas (*e.g.* baixos índices de autoestima). Os altos níveis de autoestima podem desempenhar um papel motivacional para os indivíduos desenvolverem suas ações de forma efetiva, persistirem na realização dessas e alcançarem suas metas (Aspinwall & Taylor, 1992; Di Paula & Campbell, 2002). Este potencial dos altos índices de autoestima impactar no aumento da motivação dos indivíduos resulta das percepções positivas que as pessoas com

altos níveis de autoestima possuem sobre si mesmas. Desta forma, os indivíduos que avaliam possuírem as habilidades e recursos necessários para serem bem-sucedidos, irão persistir no desenvolvimento de suas ações (Hutz et al., 2014).

A presença de sentido de vida constitui a dimensão cognitiva e motivacional do sentido de vida, uma vez que engloba a compreensão das experiências vivenciadas pelo indivíduo e de suas metas de vida (Steger, 2009, 2012). A faceta da cognição da presença de sentido de vida atende a necessidade dos indivíduos significarem suas vivências, assim como os eventos que ocorrem em seu contexto. Este processo de significação das experiências e do contexto colabora ao desenvolvimento positivo das pessoas, ao possibilitar que elas percebam coerência nas suas ações e nos eventos externos (Damásio & Koller, *in press*). As características motivacionais da presença de sentido de vida são responsáveis por impulsionar os indivíduos a buscarem a realização de suas metas. Esta motivação também contribui a compreensão do sentido de vida deles, pois a busca por um propósito de vida evidencia qual o significado de sua existência destes indivíduos (Damásio & Koller, *in press*). Por fim, a presença de sentido de vida pode assumir um papel norteador na vida dos indivíduos, uma vez que engloba a compreensão destes sobre as suas vidas e constitui-se como um motivador ao desenvolvimento positivo deles (Damásio & Koller, 2015; Steger & Frazier, 2005).

Em um contexto de constantes mudanças e insegurança econômica, como no Brasil (OECD, 2013), é provável que os indivíduos vivenciem situações desafiadoras, adversas ou que exijam mudanças na forma em que eles interagem com os outros e manejam diversas situações do seu cotidiano. Desta forma, em um país como o Brasil, os indivíduos que têm consciência sobre seus recursos pessoias, podem utilizá-los para se adaptarem a diferentes contextos, serem bem sucedidos no enfrentamento de situações desafiadoras e adversas, vivenciarem maiores índices de bem-estar e menores níveis de estresse. Além disso, experenciar maiores índices de bem-estar e menores níveis de estresse podem contribuir para

os indivíduos vivenciarem melhores condições de saúde (Al‑Dubai et al., 2014; Cohen et al., 2007).

Com base no exposto, a presente tese é composta por quatro estudos que objetivam contribuir na compreensão das relações dos recursos pessoais com os níveis de bem-estar subjetivo e estresse dos indivíduos. O primeiro artigo apresentado refere-se a uma revisão teórica sobre os estudos empíricos realizados sobre a iniciativa ao crescimento pessoal. O segundo artigo constitui-se pelo estudo de adaptação e avaliação das propriedades psicométricas da versão brasileira da Escala de Iniciativa ao Crescimento Pessoal – II (*Personal Growth Initiative Scale II,* PGI-II, Robitschek et al., 2012). O terceiro artigo investigou se as relações das dimensões da iniciativa ao crescimento pessoal com os níveis de bem-estar subjetivo eram mediadas pela presença de sentido de vida. O quarto estudo avaliou se as relações entre otimismo, pessimismo e autoestima com os índices de estresse, satisfação com a vida, afetos positivos e negativos eram mediados pelos níveis de presença de sentido de vida.

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# CAPÍTULO II

## ARTIGO I

## Systematic Review about Personal Growth Initiative[1]

Clarissa Pinto Pizarro de Freitas[1]

Bruno Figueiredo Damásio[2]

Patricia Renovato Tobo[3]

Helder Hiroki Kamei[4]

Sílvia Helena Koller[5]

[1] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).

[2] PhD in Psychology, Professor in Institute of Psychology of the Federal University of Rio de Janeiro (UFRJ).

[3] PhD in Biotechnology, Manager of Natura Innovation – Advanced Research in Sciences of Well-being.

[4] MSc in Psychology, Researcher of Natura Innovation – Advanced Research in Sciences of Well-being.

[5] PhD in Education. , Professor in Post-Graduate Program in Psychology of the Federal University of Rio Grande do Sul (UFRGS) and Coordinator of Center of Psychological Studies – CEP-Rua.

[1] Artigo a ser publicado na Revista Anales de Psicología.

Abstract

The present study aimed to realize a systematic review of publications about personal growth initiative. A literature review was realized in Bireme, Index Psi, LILACS, PePSIC, Pubmed - Publisher's Medline, Wiley Online Library, PsycINFO, OneFile, SciVerse ScienceDirect, ERIC, Emerald Journals, PsycARTICLES - American Psychological Association, Directory of Open Access Journals - DOAJ, SAGE Journals, SpringerLink, PLoS, IngentaConnect, IEEE Journals & Magazines and SciELO databases. The literature review was performed from December of 2014 to January of 2015, without stipulating date limits for the publication of the articles. It was found 53 studies, excluded seven, and analyzed 46 researches. The studies aimed to investigate the psychometric properties of personal growth initiative scale and personal growth initiative scale II. The relations of personal initiative growth and others constructs were also evaluated. Furthermore the studies investigated the impact of interventions to promote personal growth initiative. Results of these studies showed that personal growth initiative was positively related to levels of well-being, self-esteem and others positive dimensions, and negatively to anxiety, depression and others negative factors.

Keywords: Personal growth initiative; assessment; well-being; literature review.

Revisión Sistemática sobre Iniciativa de Crecimiento Personal

Resumen

El presente estudio busca realizar una revisión sistemática de publicaciones acerca de la iniciativa de crecimiento personal. Se realizó una revisión de literatura en las bases de datos Bireme, Index Psi, LILACS, PePSIC, Pubmed - Publisher's Medline, Wiley Online Library, PsycINFO, OneFile, SciVerse ScienceDirect, ERIC, Emerald Journals, PsycARTICLES - American Psychological Association, Directory of Open Access Journals - DOAJ, SAGE Journals, SpringerLink, PLoS, IngentaConnect, IEEE Journals & Magazines y SciELO. La revisión de la literatura se realizó a partir de diciembre de 2014 a enero de 2015, sin estipular límites de fecha para la publicación de los artículos. De los 53 estudios hallados, se excluyeron 7 y se analizaron 46. Los estudios se enfocaron en investigar las propiedades psicométricas de la escala iniciativa de crecimiento personal y de iniciativa de crecimiento personal escala II. Las relaciones de crecimiento personal iniciativa y otros constructos también fueron evaluados. Además, los estudios investigaron el impacto de las intervenciones para promover la iniciativa de crecimiento personal. Los resultados de estos estudios mostraron que iniciativa de crecimiento personal se relaciona positivamente con los niveles de bienestar, la autoestima y otras dimensiones positivas, y negativamente con la ansiedad, depresión y otros factores negativos.

Palabras clave: Iniciativa de crecimiento personal; evaluación; bienestar; revisión de literature.

Throughout life, individuals are likely to experience challenging, adverse situations that require changes in the way they interact with others and handle various quotidian situations. Changes developed by people can be caused by external factors (e.g., job promotion) or can be changes caused by the individual (e.g., completing a post-graduate course). These changes may require those involved to adapt to a new context, interact with others differently, and use appropriate coping strategies to manage these new demands (Robitschek, 1997).

The process of change intentionally developed by individuals are recognized as personal growth initiative (PGI). Personal growth initiative can be understood as the active and intentional involvement of the individual in their personal growth process (Robitschek, 1998). Personal changes originating from PGI can be realized in the different life domains of individuals, occurring in the affective, cognitive and behavioral dimensions (Robitschek, 2003). Thus, the ability to identify and make personal changes that promote the positive development of individuals, when their living conditions change (e.g., birth of a child, job promotions, marriage), constitutes personal growth initiative (Robitschek, 1998).

Personal growth initiative comprises one of the dimensions of psychological well-being (Ryff & Keyes, 1995). Psychological well-being refers to positive or optimal psychological functioning, composed of the dimensions self-acceptance, positive relations with others, autonomy, environment mastery, purpose in life, and personal growth (Ryff & Keyes, 1995; Villacieros, Serrano, Bermejo, Magaña, & Carabias, 2014). In addition to composing a dimension of psychological well-being (Ryff & Keyes, 1995), PGI can be comprehended as a personal resource, as it encompasses a set of skills that contribute to making changes that promote positive development in people (Weigold & Robitschek, 2011). Personal resources can be comprehended as the skills and positive evaluations of the individual regarding their ability to control and produce an impact on their environment.

These resources are intrinsic and are characterized as independent dimensions, which are not fixed, can be developed and are influenced by changes in the environment. Thus, PGI as a personal resource refers to the individual skills that promote the development of intentional personal changes, consciously planned by the people who perform them (Weigold, Porfeli, & Weigold, 2013; Weigold & Robitschek, 2011).

The intentionality and consciousness present in the PGI processes are the characteristics that differentiate it from processes of unintended and unconscious personal changes (Robitschek, 1998; Weigold et al., 2013a). The processes of personal change can be categorized as unconscious and unintentional processes, conscious and unintentional processes, and conscious and intentional processes, such as PGI (Robitschek, 1998).

The processes of unconscious and unintentional change and of conscious and unintentional change usually result from environmental pressures, which also enable personal growth, although this is not intentional. In the process of unconscious and unintentional change, subjects may not be aware of what motivated their personal changes, or how they chose to assume new forms of interaction with other people. In the process of conscious and unintentional change individuals recognize the need for change, however have little control over how this process of change occurs (Robitschek, 1999). The distinction between unintended conscious and unconscious processes and PGI is important, as the processes of unintentional personal growth are negatively related to people's levels of well-being and to their positive development. The PGI process, in turn, is positively associated with increased levels of well-being and to the positive development of individuals (Robitschek, 1999).

In order to investigate PGI, Robitschek (1998) developed the Personal Growth Initiative Scale (PGIS). The development of this questionnaire was conducted with a sample of participants of a PGI promotion course. The PGIS presented an unidimensional structure, composed of nine items that evaluate personal growth through a six-point Likert scale,

ranging from definitely disagree to definitely agree. The instrument presented satisfactory psychometric properties (Robitschek, 1998).

Despite the adequate factor structure, temporal stability, and convergent validity of the PGIS, this instrument does not investigate the different dimensions of PGI (e.g., cognitive and behavioral). As a result, Robitschek et al. (2012) developed the Personal Growth Initiative Scale - II (PGIS-II), which constituted a new multifactorial version of the PGIS. The PGIS-II consists of 16 items, divided into the following four factors: readiness for change; planfulness; intentional behavior; and using resources.

According to the proposition of Robitschek et al. (2012), PGI is composed of a cognitive dimension, recognized in the "Readiness for change" and "Planfulness" factors, and a behavioral dimension, identified in the "Using Resources" and "Intentional Behavior" factors. The "Readiness for Change" refers to the ability of the individual to identify or create situations with the potential to promote personal growth. The "planfulness" factor can be comprehended as a person's ability to organize strategies to facilitate their personal development. The "Intentional Behavior" factor, in turn, evaluates the disposition and personal motivation to achieve the goals established for personal change. The "Using Resources" factor covers the use of personal and external resources (e.g. help from others) in the promotion of personal growth (Robitschek et al., 2012). This is the only factor of PGI that encompasses the interpersonal dimension of individuals, which relates differently with the other factors of PGI (Robitschek et al., 2012; Weigold et al., 2013a).

Individuals who have high levels of the readiness for change, planfulness, intentional behavior, and using resources dimensions of PGI may have a greater potential to identify or create opportunities that enable and intensify their positive personal development (Robitschek & Kashubeck, 1999). People with high levels of PGI adapt better to different situations, overcome stressful situations, have higher levels of life satisfaction, and seek appropriate

solutions to the situations faced (Loo, Tsai, Raylu, & Oei, 2014; Robitschek et al., 2012; Weigold et al., 2013a). High PGI levels are also positively related to positive affect and negatively to anxiety, depression and negative affect (Hardin et al., 2007; Robitschek & Kashubeck, 1999; Robitschek & Keyes, 2009).

A lack of PGI skills is associated with a negative impact in people's lives. It has been observed that low levels of PGI are related to difficulties in adapting to new contexts, so that those involved experience higher levels of stress and anxiety and lower levels of life satisfaction (Stevic & Ward, 2008; Weigold & Robitschek, 2011; Yakunina, Weigold, & Weigold, 2013; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013). Difficulties in identifying opportunities for personal growth are also associated with the adoption of ineffective coping strategies, such as the prevalent use of emotion-focused coping strategies rather than the use of problem-focused strategies (Weigold & Robitschek, 2011).

The positive impact of PGI on the levels of well-being experienced by people, as well as its role in positive development, exposes the relevance of comprehending this construct in depth. For this reason, a systematic literature review was performed, with the aim of analyzing studies that investigate the relationship of PGI with other psychological variables, as well as the instruments used to evaluate PGI.

## Method

A systematic literature review related to the PGI concept was performed, without stipulating date limits. A total of 19 databases were consulted (Bireme, Index Psi, LILACS, PePSIC, Pubmed - Publisher's Medline, Wiley Online Library, PsycINFO, OneFile, SciVerse ScienceDirect, ERIC, Emerald Journals, PsycARTICLES - American Psychological Association, Directory of Open Access Journals - DOAJ, SAGE Journals, SpringerLink, PLoS, IngentaConnect, IEEE Journals & Magazines, and SciELO), present in the CAPES Journals portal. The descriptor used in the search was "personal growth initiative" in English,

Portuguese (*iniciativa ao crescimento pessoal*), and Spanish (*iniciativa para el crecimiento personal*). The descriptor had to be present in the abstract or body of the text. The study selection criteria were: empirical study; published in a peer-reviewed journal; and written in Portuguese, English or Spanish. No literature review studies were included in this search, since the aim of this study was to find scales and empirical studies about PGI. Similarly, studies published in books, book chapters, dissertations and theses were not included, due to the possible difficulties in accessing the material in its entirety. All procedures cited above were realized from December of 2014 to January of 2015.

## Results

A total of 53 studies were encountered, seven were eliminated, and 46 studies involving the PGI construct were analyzed. Among the seven studies eliminated one referred to a book and the other six to dissertations and theses. The 46 articles encountered were published in English. There was an increase in publications over time, especially since 2007 (see Figure 1). The full references of the included studies are highlighted with an asterisk (*) in the reference list.

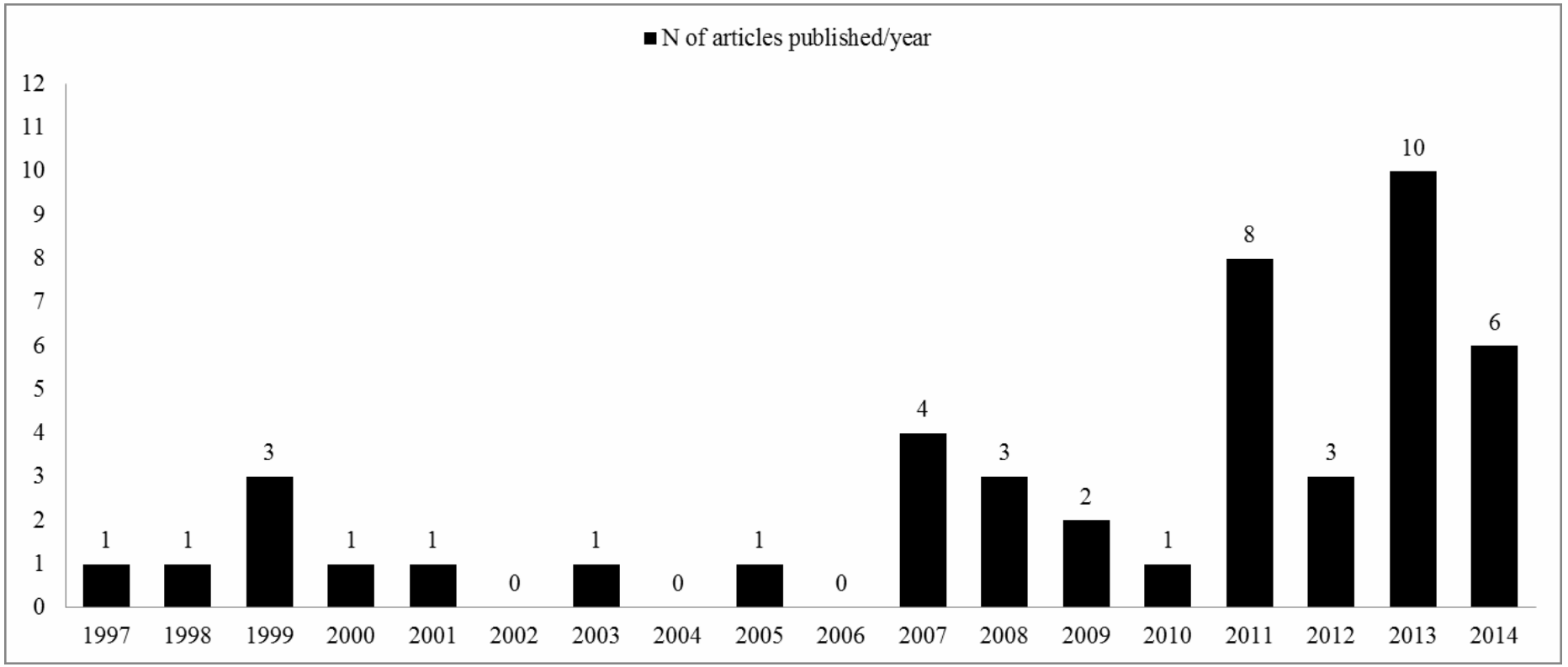


Figure 1. *Articles published about the construct of personal growth initiative between 1997-2014*

Among the studies, nine investigated the psychometric properties of the scales used to evaluate PGI, two of which used the PGIS and seven the PGIS-II. The relationships of PGI with external variables were the focus of 34 studies, of which 28 used the PGIS, five applied the PGIS-II, and one was a qualitative study. Finally, three studies used PGI to verify the impact of interventions (see Table 1). In order to detail these results, these topics and the studies that comprise them, are shown separately.

Table 1. *Characteristics of the articles analyzed*

| Authors /Year of Publication | Instrument | Sample | Country |
|---|---|---|---|
| Robitschek, 1997 | PGIS | General Population | USA |
| Robitschek, 1998 | PGIS | General Population | USA |
| Robitschek, 1999 | PGIS | College Students | USA |
| Robitschek & Cook, 1999 | PGIS | College Students | USA |
| Robitschek & Kashubeck, 1999 | PGIS | College Students | USA |
| Bartley & Robitschek, 2000 | PGIS | College Students | USA |
| Whittaker & Robitschek, 2001 | PGIS | College Students | USA |
| Robitschek, 2003 | PGIS | College Students | USA |
| Robitschek & Hershberger, 2005 | PGIS | General Population | USA |
| Hardin, Weigold, Robitschek, & Nixon, 2007 | PGIS | College Students | USA |
| Neff, Rude, & Kirkpatrick, 2007 | PGIS | College Students | USA |
| Ogunyemi & Mabekoje , 2007 | PGIS | College Students | Nigeria |
| Shorey, Little, Snyder, Kluck, & Robitschek, 2007 | PGIS | College Students | USA |
| Kashubeck-West & Meyer, 2008 | PGIS | General Population | USA |

Table 1. *Characteristics of the articles analyzed (continuation)*

| | | | |
|---|---|---|---|
| Klockner & Hicks, 2008 | PGIS | General Population | USA |
| Stevic & Ward, 2008 | PGIS | College Students | USA |
| Borja & Callahan, 2009 | PGIS | College Students | USA |
| Robitschek & Keyes, 2009 | PGIS | College Students | USA |
| Negovan, 2010 | PGIS | College Students | Romania |
| Barak & Achiron, 2011 | PGIS | Patients with Multiple Sclerosis and Individuals Not Diagnosed for Multiple Sclerosis | Israel |
| Ivtzan, Chan, Gardner & Prashar, 2011 | PGIS | College Students | England |
| Oluyinka, 2011 | PGIS | College Students | Nigeria |
| Sharma, Garg, & Rastogi, 2011 | PGIS | College Students | India |
| Sultan, 2011 | PGIS | Patients Diagnosed with Depression and Patients Diagnosed with Diabetes | Pakistan |
| Vaingankar et al., 2011 | PGIS | General Population | Singapore |
| Wang & Tien, 2011 | PGIS | Workers | China |

Table 1. *Characteristics of the articles analyzed (continuation)*

| | | | |
|---|---|---|---|
| Weigold & Robitschek, 2011 | PGIS | College Students | USA |
| Ayub & Iqbal, 2012 | PGIS | College Students | Pakistan |
| Lasun & Odufowokan, 2012 | PGIS | Workers | Nigeria |
| Robitschek et al., 2012 | PGIS | General Population | USA |
| Bhattacharya & Mehrotra, 2013 | Semi-structured interview | College Students | India |
| Sharma & Rani, 2013 | PGIS - II | College Students | India |
| Thoen & Robitschek, 2013 | PGIS - II | College Students | USA |
| Weigold et al., 2013a | PGIS - II | College Students | USA |
| Weigold, Weigold & Russell, 2013 | PGIS - II | College Students | USA |
| Yakunina et al., 2013a | PGIS - II | College Students | USA |
| Yakunina et al., 2013b | PGIS - II | College Students | USA |
| Yalcin & Malkoc, 2013 | PGIS - II | College Students | Turkey |
| Callahan, Borja, Herbert, Maxwell, & Ruggero, 2013 | PGIS | College Students | Romania |
| Negovan & Bogdan, 2013 | PGIS | College Students | USA |
| Bhattacharya & Mehrotra, 2014 | PGIS - II | College Students | India |

Table 1. *Characteristics of the articles analyzed (continuation)*

| | | | |
|---|---|---|---|
| Loo et al., 2014 | PGIS | General Population | China |
| Luyckx & Robitschek, 2014 | PGIS - II | College Students | Belgium |
| Sharma & Rani, 2014 | PGIS - II | College Students | India |
| Weigold, Weigold, Russell, & Drakeford, 2014 | PGIS - II | College Students | USA |
| Yang & Chang, 2014 | PGIS - II | College Students | China |

*Psychometric Properties of the Personal Growth Initiative Scale (PGIS) and the Personal Growth Initiative Scale II (PGIS-II)*

The Personal Growth Initiative Scale (PGIS) was the first scale developed to evaluate PGI (Robitschek, 1998, 2003). This scale presents nine items in a unidimensional structure (Robitschek, 1998). The development study of the PGIS involved a sample of participants of a PGI promotion course. The final version of PGIS presented adequate internal consistency ($\alpha$ = .90) and fit indices for the unidimensional structure ($\chi^2$ (27) = 61.5, $p$ < .001, CFI = .95, NFI = .93). Furthermore, the PGIS showed a test-retest reliability index of .74 after a period of two months (Robitschek, 1998).

Although the PGIS presented stability in the test-retest reliability evaluations with the North-American sample investigated by Robitschek (1998), the unidimensional structure of the PGIS was not observed in a sample of Mexican university students (Robitschek, 2003). The psychometric properties of the PGIS were evaluated among Mexican university students, due to cultural differences between the European-American culture (i.e., individualist) and the Hispanic culture (i.e. collectivist) (Allik, & Realo, 2004). In this study, it was shown that the PGIS, when applied in Hispanic populations, presented improvement in the model fit indices when proposing a two-factor structure, compared to the unidimensional structure (Robitschek, 2003).

The Personal Growth Initiative Scale - II (PGIS-II) was developed in order to overcome the limitation of the PGIS in evaluating the multifactorial construct of PGI through a single-factor structure (Robitschek et al., 2012). The PGIS-II has 16 items, organized in the four factors that constitute PGI. The development study of the PGIS-II was conducted with a sample of psychology students.

The factor structure of the PGIS-II showed adequate fit indices s-b$\chi^2$ (330, $n$ = 1.796) = 1356.70, $p < 0.001$; SRMR = 0.09; RMSEA = 0.07 (90% C.I. = 0.07 – 0.08). In addition satisfactory test-retest stability indices were observed, ranging from 0.73 (using resources) to 0.81 (planfulness) (Robitschek et al., 2012). Despite the four-factor structure providing the best fit indices, the authors propose that the general PGI score can be obtained through the sum of the four dimensions that compose the PGIS-II (Robitschek et al., 2012).

The study by Yakunina et al. (2013a) aimed to investigate the psychometric properties of the North-American version of the PGIS-II in a non-native population of the United States of America (USA). Non-native students of the USA attending North-American Universities were interviewed (Yakunina et al., 2013a). The findings corroborate the universality of the construct, as well as the comprehension of the four-factor construct of PGI (readiness for change, planfulness, intentional behavior, and using resources). The four-factor structure of the PGIS-II presented adequate fit indices ($\chi^2$ (98, $n$ = 386) = 353.22, $p < 0.001$; CFI = 0.93; SRMR = 0.05; RMSEA = 0.08) (Yakunina et al., 2013a).

Another study that examined the psychometric properties of the PGIS-II in the USA verified the invariance of the scale regarding data collection methods. The results of data collected through paper and pencil questionnaires and through internet based questionnaires were compared (Weigold et al., 2013b). The findings of this study demonstrate the invariance of the PGIS-II in pen and paper and virtual collection methods, indicating that the two forms of data collection are effective for the evaluation of PGI (Weigold et al., 2013b).

Yang and Chang (2014) conducted an adaptation study for the Chinese version of the PGIS-II. In this study a sample of Chinese university students was analyzed. It was observed

that the version of PGIS-II adapted to Mandarin presented adequate fit indices for the four-factor version ($\chi^2$ (98, $n$ = 927) = 816.90, $p$ < 0.001; CFI = 0.95; SRMR = 0.06; RMSEA = 0.07 (90% C.I. = 0.07 – 0.08)). The test-retest stability indices were also adequate, ranging from 0.70 (readiness for change) to 0.90 (using resources). These results demonstrate that the PGIS-II is an adequate instrument to evaluate PGI in the Chinese culture (Yang & Chang, 2014).

The Turkish version of the PGIS-II was adapted based on a sample of university students (Yalcin & Malkoc, 2013). It was observed that, despite the differences in social values between the Turkish and American cultures, the four PGI factors were identified. The structure of the Turkish version of the PGIS-II was similar to that observed in the original scale, and the fit indices were adequate ($\chi^2$ (98, $n$ = 279) = 220.49, $p$ < 0.001; CFI = 0.98; SRMR = 0.14; RMSEA = 0.06) (Yalcin & Malkoc, 2013).

Unlike that observed in the samples of non-native people residing in the USA (Yakunina et al., 2013a), Chinese (Yang & Chang, 2014) and Turks (Yalcin & Malkoc, 2013), the Indian version of the PGIS-II presented a different factor structure to the original (Bhattacharya & Mehrotra, 2014). The investigation of the psychometric properties of the PGIS-II was performed by Bhattacharya and Mehrotra (2014). The study sample was comprised of university students. The analysis of the Indian version of the PGIS-II showed that the four PGI factors presented unsatisfactory internal consistency indices in the sample studied. As a result, the structure of the scale was examined through exploratory factor analysis. The analysis results showed that the Indian version of the PGIS-II had a two-factor structure. The first factor refers to the cognitive aspects of PGI, identified as “Awareness of

the need for change", which presented adequate internal consistency (α = 0.86). The second factor covers the behavioral aspects of PGI, denominated "Acting on the awareness", with satisfactory internal consistency (α = 0.79). The four PGI factors proposed in the original scale (Robitschek et al., 2012) were not replicated in this Indian sample. However, the results of this study on PGI in an Indian sample confirm the universality of the construct, since the cognitive and behavioral aspects of PGI were identified (Bhattacharya & Mehrotra, 2014).

*Personal Growth Initiative and Relationships with External Variables*

Due to the awareness and intentionality of PGI being central characteristics of this process of personal change, Robitschek (1999) investigated how PGI was related to other personal growth processes. For this, the author analyzed the associations of PGI with the unconscious and unintentional growth process, with the conscious and unintentionally growth process, and with intentional ways of growing in a sample of university students. The results showed that PGI was related negatively to the unconscious and unintentional growth process and to the conscious and unintentional growth process, and positively to intentional ways of growing (Robitschek, 1999), demonstrating that PGI is a developmental process deliberated by the individual.

In other studies, it was observed that PGI presented positive relationships with positive characteristics of the individual, e.g. self-esteem (Kashubeck-West & Meyer, 2008); self-efficacy (Ogunyemi & Mabekoje, 2007); and self-compassion (Neff et al., 2007). Similarly, PGI was negatively associated with negative personal characteristics, such as increased chances of developing a pathological gambling disorder (Loo et al., 2014).

Personal growth initiative was positively related to the dimensions of self-acceptance, positive relations with others, autonomy, environment mastery, purpose in life, and personal growth of the psychological well-being (Ayub & Iqbal, 2012; Kashubeck-West & Meyer, 2008; Robitschek & Kashubeck, 1999; Robitschek & Keyes, 2009). Studies that investigated psychological well-being as a single-factor dimension also evidenced the positive relationship between this and PGI (Kashubeck-West & Meyer, 2008; Lasun & Odufowokan, 2012; Negovan, 2010; Robitschek, 1999; Shorey et al., 2007)

Higher levels of PGI were associated with the presence of higher indices of emotional well-being, social well-being (Negovan, 2010) happiness, social actualization, social contribution, social coherence, social integration (Robitschek & Keyes, 2009), life satisfaction (Kashubeck-West & Meyer, 2008; Robitschek & Kashubeck, 1999; Robitschek & Keyes, 2009; Stevic & Ward, 2008); positive mental health (Ogunyemi & Mabekoje, 2007; Vaingankar et al., 2011); and positive affect (Hardin et al., 2007; Robitschek & Keyes, 2009). Consequently, people who had higher levels of PGI were more likely to possess lower levels of negative affect (Hardin et al., 2007), stress (Hardin et al., 2007; Shorey et al., 2007), lower levels of perceived stigma (Sultan, 2011) and more chance of healthily recovering from traumatic experiences (Borja & Callahan, 2009; Callahan et al., 2013).

The characteristics of the family system of individuals may be related to the PGI indices (Robitschek & Kashubeck, 1999; Whittaker & Robitschek, 2001). Regarding the family system in a sample of North-American university students, it was demonstrated that family cohesion and communication were positively related to PGI, whereas family conflict was negatively related to this variable. It was also observed that PGI mediates the

relationships between the family processes ant the levels of stress experienced by individuals (Robitschek & Kashubeck, 1999). In another North-American study (Whittaker & Robitschek, 2001), it was observed that among women the family processes and the encouragement of personal development in the family system were positively associated with PGI. Among men, the family processes and family organization were positively associated with PGI.

Personality characteristics may also have an impact on the PGI indices (Sharma et al., 2011). In a sample of Indian students it was observed that the dimensions that compose the type A personality (tension, impatience, restlessness, directed toward achievement, centralization of tasks, and addiction to work) were positively related to PGI, while the dimensions of the type B personality (compliance, casualness, passivity, relaxation and patience) presented a negative association with PGI (Sharma et al., 2011).

In addition to the aforementioned relationships, it was demonstrated that PGI was positively associated with greater career exploration, clarity regarding the vocational identity (Bartley & Robitschek, 2000; Robitschek & Cook, 1999), and spirituality (Ivtzan et al., 2011). It has been observed that the presentation of some behaviors that may contribute to the development of the individual is associated with higher levels of PGI, such as the effective use of adaptive coping strategies (e.g., problem-focused coping, Weigold & Robitschek, 2011), choosing to engage in psychotherapeutic treatments (Klockner & Hicks, 2008; Oluyinka, 2011), as well as the commitment to the psychotherapy process performed (Robitschek & Hershberger, 2005) and the tendency to develop behaviors out of the individual's comfort zone (Lasun & Odufowokan, 2012; Ogunyemi & Mabekoje, 2007).

In order to comprehend the phenomenon of PGI in different groups, studies compared the PGI indices of multiple sclerosis patients with those of people without multiple sclerosis (Barak & Achiron, 2011) and students of public universities with those of private universities, and classroom based undergraduate students with distance based undergraduate students (Negovan & Bogdan, 2013). In these studies it was observed that the groups (patients vs. healthy, public university students vs. private university students, classroom based undergraduate students vs. distance based undergraduate students) did not show differences in relation to the PGI indices (Barak & Achiron, 2011; Negovan & Bogdan, 2013).

Only five studies used the PGIS-II as an instrument to evaluate PGI (Luyckx & Robitschek, 2014; Sharma & Rani, 2013, 2014; Weigold et al., 2014; Yakunina et al., 2013a). The use of the PGIS-II allows the investigation of the cognitive (openness to change and planfulness) and behavioral (using resources and intentional behavior) dimensions of PGI through a multifactorial scale (Robitschek et al., 2012). Futhermore, Robitschek et al. (2012) proposed that the sum of the scores of the four factors provide an overall PGI score.

In a study using the PGIS-II with North-American university students, it was shown that the dimensions readiness for change, planfulness and intentional behavior were positively associated with the original measure of PGI, self-efficacy, internal locus of control and negatively associated with powerful others locus of control and chance locus of control. However, the using resources dimension did not show the same relationship pattern as the other PGI factors, in a way that using resources was positively associated with the original measure of PGI and self-efficacy only (Weigold et al., 2014).

Studies developed with Indian university students used the PGIS-II to evaluate how the four dimensions of PGI were associated with variables related to well-being (Sharma & Rani, 2013, 2014). It was shown that the four PGI dimensions (readiness for change, planfulness, using resources, and intentional behavior) presented positive relationships with self-efficacy dimensions (initiative, persistence and effort) (Sharma & Rani, 2013), emotional well-being, psychological well-being and social well-being (Sharma & Rani, 2014).

The study by Luyckx and Robitschek (2014) with North-American youths showed that the PGI dimensions are related to the processes of identity (exploration in breadth, exploration in depth, ruminative exploration, commitment making, and identification with commitment) and to the levels of depression and self-esteem of the participants. The exploration process refers to active questioning regarding the identity and the search for experiences of different social roles, which precedes the commitment process. In the exploration in breadth process the young person broadly analyses and experiences the different social roles. Exploration in depth is characterized by a process in which the young person is intensely involved in the analysis of their personal values and their social role. Ruminative exploration refers to a process of continual exploration, associated with anxiety and depression, in which the young person has difficulty committing to choices that will enable the development of their identity. The process of commitment making is constituted by the beliefs, goals and values that young people adopt as part of their identity. Identification with commitment can be comprehended as how young people identify with the social groups and activities that share the same values and social goals adopted by them (Luyckx & Robitschek, 2014).

The readiness for change dimension was positively related to the identity process of ruminative exploration. The planfulness dimension was positively associated with self-esteem, and the processes of commitment making and identification with commitment, and negatively associated with ruminative exploration and depression. Using resources was positively associated with exploration in depth and ruminative exploration. The intentional behavior dimension was positively related to exploration in breadth and exploration in depth. Furthermore, the exploration in breadth identity process totally mediated the relationship of the readiness for change dimension with the indices of self-esteem and depression. The ruminative exploration identity process partially mediated the relationship of using resources and intentional behavior with self-esteem and depression. Finally, the processes of exploration in breadth and ruminative exploration partially mediated the relationships of planfulness with the levels of self-esteem and depression (Luyckx & Robitschek, 2014).

Studies by Sharma and Rani (2013, 2014) and Yakunina et al. (2013b) investigated the relationship between the overall PGI score, evaluated through the PGIS-II, and other variables. These studies demonstrated that the overall PGI score was positively related to hardiness, universal-diverse orientation, psychological adjustment, emotional well-being, psychological well-being and social well-being, self-efficacy and negatively related to stress (Sharma & Rani, 2013; Yakunina et al., 2013b).

The results cited above showed that PGI and its dimensions (readiness for change, planfulness, using resources, and intentional behavior) are related to several external variables. In social sciences, the magnitude of correlations may be classified as small when values (*r*) are smaller than .30, medium when values range from .30 to .50, and large when

values are higher than .50 (Cohen, 1992). The present study showed that the general score of PGIS presented high positive correlations with personal resources (*e.g.* self-esteem, autonomy, Kashubeck-West & Meyer, 2008), future-oriented variables (*e.g.* purpose in life, Ayub & Iqbal, 2012), and well-being (*e.g.* psychological well-being, Robitschek, 1999). The positive relations of medium magnitude between PGI and external variables covered mainly well-being related constructs (*e.g.* happiness, Robitschek & Keyes, 2009) and personal resoucers (*e.g.* self-compassion, Neff et al., 2007). The positive correlations of PGI with low magnitude were in general with social well-being related variables, such as social actualization and social integration (Robitschek & Keyes, 2009). The PGI general score negative relations were of high magnitude with future-oriented variables (*e.g.* unconscious and unintentional growth process, Robitschek, 1999) and medium with variables related to mental health, such as anxiety (Weigold & Robitschek, 2011) and stress (Hardin et al., 2007) (See Table 2).

The PGI dimensions (readiness for change, planfulness, using resources, and intentional behavior) were positively and higly associated with personal resources, like self-efficacy (Weigold et al., 2014). The PGI dimensions presented positive and moderate correlations with variables related to personal growth (*e.g.* exploration in breadth and in depth, Luyckx & Robitschek, 2014). Furthermore, results showed that the readiness for change, planfulness, using resources, and intentional behavior presented positive associations of low magnitude with well-being related constructs, such as psychological, social and emotional well-being (Sharma & Rani, 2014). The negative relations between PGI

dimensions and external variables presented low magnitude, as can be observed betwen depressive symptons and ruminative exploration (Luyckx & Robitschek, 2014) (See Table 2).

The PGI general score assessed by the PGIS-II showed positive high correlations with personal features, such as hardiness and universal-diverse orientation (Yakunina et al., 2013b). The relations of PGI general score to well-being were low (*e.g.* psychological, social and emotional well-being, Sharma & Rani, 2014). Moreover, the negative relations of PGI general score to negative outcomes were medium, such as the relation of PGI to stress (Yakunina et al., 2013b) (see Table 2).

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | PGIS | PGIS – II | | | | |
|---|---|---|---|---|---|---|---|
| | Authors /Year of Publication | GS | RC | Pla | IB | UR | GS |
| Personal Features | | | | | | | |
| UU | Robitschek, 1999 | -.54* | | | | | |
| CU | Robitschek, 1999 | -.25* | | | | | |
| IWG | Robitschek, 1999 | .34* | | | | | |
| ICL | Weigold et al., 2014 | | .33* | .40* | .08 | .38* | |
| PLC | Weigold et al., 2014 | | -.27* | -.26* | .04 | -.19* | |
| CLC | Weigold et al., 2014 | | -.24* | -.28* | .08 | -.24* | |
| SE | Kashubeck-West & Meyer, 2008 | .65* | | | | | |
| | Luyckx & Robitschek, 2014 | | .20* | .33* | .18* | .24* | |
| SEf | Ogunyemi & Mabekoje, 2007 | .22* | | | | | |
| | Weigold et al., 2014 | | .65* | .70* | .26* | .66* | |
| Ini | Sharma & Rani, 2013 | | -.11* | -.19* | .11* | -.20* | -.15* |
| Per | Sharma & Rani, 2013 | | .14* | .12* | .10* | .14* | .18* |
| Ef | Sharma & Rani, 2013 | | .17* | .30* | .10* | .33* | .33* |
| SC | Neff et al., 2007 | .45* | | | | | |
| BCZ | Lasun & Odufowokan, 2012 | .25* | | | | | |
| | Ogunyemi & Mabekoje, 2007 | .26* | | | | | |
| PGIS | Weigold et al., 2014 | | .61* | .69* | .35* | .68* | |
| H | Yakunina et al., 2013b | | | | | | .50* |
| UDO | Yakunina et al., 2013b | | | | | | .38* |
| TPA | Sharma et al., 2011 | .61* | | | | | |
| TPB | Sharma et al., 2011 | -.37* | | | | | |

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subjective Well-being | | | | | | | |
| LS | Kashubeck-West & Meyer, 2008 | .52* | | | | | |
| | Robitschek & Kashubeck, 1999 | .42 | | | | | |
| | Robitschek & Keyes, 2009 | .40* to .36* | | | | | |
| PA | Robitschek & Keyes, 2009 | .38* to .37* | | | | | |
| | Hardin et al., 2007 | .49* | | | | | |
| NA | Hardin et al., 2007 | -.26* | | | | | |
| Psychological Well-Being | | | | | | | |
| PWB | Kashubeck-West & Meyer, 2008 | .73* | | | | | |
| | Lasun & Odufowokan, 2012 | .11* | | | | | |
| | Negovan, 2010 | .60* | | | | | |
| | Robitschek, 1999 | .70* | | | | | |
| | Sharma & Rani, 2014 | | .18* | .29* | .03 | .35* | .31* |
| | Shorey et al., 2007 | .31* to .42* | | | | | |
| Au | Ayub & Iqbal, 2012 | .22* | | | | | |
| | Kashubeck-West & Meyer, 2008 | .56* | | | | | |
| | Negovan & Bogdan, 2013 | .43* | | | | | |
| | Robitschek & Keyes, 2009 | .28* to .42* | | | | | |

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | |
|---|---|---|
| EM | Ayub & Iqbal, 2012 | .34* |
| | Kashubeck-West & Meyer, 2008 | .61* |
| | Robitschek & Keyes, 2009 | .41* to .46* |
| PRO | Ayub & Iqbal, 2012 | .24* |
| | Kashubeck-West & Meyer, 2008 | .56* |
| | Robitschek & Kashubeck, 1999 | .39* |
| | Robitschek & Keyes, 2009 | .32* to .33* |
| PL | Ayub & Iqbal, 2012 | .56* |
| | Kashubeck-West & Meyer, 2008 | .65* |
| | Robitschek & Keyes, 2009 | .39* to .35* |
| PG | Ayub & Iqbal, 2012 | .48* |
| | Kashubeck-West & Meyer, 2008 | .59* |
| | Robitschek & Kashubeck, 1999 | .43* |

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Robitschek & Keyes, 2009 | .38* to .33* | | | | | |
| SA | Ayub & Iqbal, 2012 | .54* | | | | | |
| | Kashubeck-West & Meyer, 2008 | .62* | | | | | |
| | Robitschek & Kashubeck, 1999 | .51* | | | | | |
| | Robitschek & Keyes, 2009 | .41* to .41* | | | | | |
| Well-Being | | | | | | | |
| EWB | Sharma & Rani, 2014 | | .10* | .15* | .02 | .17* | .16* |
| | Negovan, 2010 | .30* | | | | | |
| Hap | Robitschek & Keyes, 2009 | .41* to .36* | | | | | |
| SWB | Sharma & Rani, 2014 | | .10* | .10* | -.05 | .17* | .13 |
| SAc | Robitschek & Keyes, 2009 | .26* | | | | | |
| SCon | Robitschek & Keyes, 2009 | .31* to .40* | | | | | |
| SCoh | Robitschek & Keyes, 2009 | .35* to .36* | | | | | |
| SInt | Robitschek & Keyes, 2009 | .28* | | | | | |

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mental Heatlh | | | | | | | |
| PMH | Ogunyemi & Mabekoje, 2007 | .11* | | | | | |
| | Vaingankar et al., 2011 | .63* | | | | | |
| PsAd | Yakunina et al., 2013b | | | | | | .60* |
| CM | Luyckx & Robitschek, 2014 | | .20* | .28* | .14* | .22* | |
| IWC | Luyckx & Robitschek, 2014 | | .33* | .42* | .20* | .30* | |
| EB | Luyckx & Robitschek, 2014 | | .30* | .29* | .19* | .34* | |
| ED | Luyckx & Robitschek, 2014 | | .33* | .35* | .32* | .39* | |
| RE | Luyckx & Robitschek, 2014 | | -.05 | -.20* | .02 | -.07 | |
| FP | Whittaker & Robitschek, 2001 | .25* to .29* | | | | | |
| O | Whittaker & Robitschek, 2001 | .15* to .20* | | | | | |
| CE | Bartley & Robitschek, 2000 | .41* | | | | | |
| | Robitschek & Cook, 1999 | .39* | | | | | |
| VI | Bartley & Robitschek, 2000 | .38* to .55* | | | | | |
| | Robitschek & Cook, 1999 | .43* to .52* | | | | | |
| Sp | Ivtzan et al., 2011 | .33* | | | | | |
| Coping | | | | | | | |
| PFC | Weigold & Robitschek, 2011 | .39* to .49* | | | | | |
| EFC | Weigold & Robitschek, 2011 | -.25* to -.34* | | | | | |

Table 2. *Relations of Personal Growth Initiative (readiness for change, planfulness, intentional behavior, and using resources) with external variables*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Negative Outcomes | | | | | | | |
| PSt | Sultan,2011 | -.63* | | | | | |
| GD | Loo et al., 2014 | .12* | | | | | |
| An | Robitschek & Kashubeck, 1999 | -.27* | | | | | |
| | Weigold & Robitschek, 2011 | -.27* to -.36* | | | | | |
| DS | Luyckx & Robitschek, 2014 | | -.15* | -.27* | -.09* | -.16* | |
| | Robitschek & Kashubeck, 1999 | -.29* | | | | | |
| S | Hardin et al., 2007 | -.40* | | | | | |
| | Shorey et al., 2007 | -.20* to -.29* | | | | | |
| | Yakunina et al., 2013b | | | | | | -.44* |
| TS | Borja & Callahan, 2009 | -.13* | | | | | |
| | Callahan et al., 2013 | -.24* | | | | | |

Note: * $p < .05$, PGIS = Personal Growth Initiative Scale, PGIS-II = Personal Growth Initiative Scale - II, GS = General Score, RC = Readiness for Change, Pla = Planfulness, IB = Intentional Behavior, and UR = Using Resources, UU = Unconscious and Unintentional Growth Process, CU = Conscious and Unintentional Growth Process, IWG = Intentional Ways of Growing, ICL = Internal Locus of Control, PLC = Powerful Others Locus of Control, CLC = Chance Locus of Control, SE = self-esteem, SEf = self-efficacy, Ini = Initiative, Per = Persistence, Ef = Effort, SC = Self-Compassion, TBCZ = Tendency to Develop Behaviors Out of the Individual's Comfort Zone, H = Hardiness, UDO = Universal-Diverse Orientation, TPA = Type A Personality, TBP = Type B Personality, LS = Life Satisfaction, PA = Positive Affect, NA = Negative Affect, PWB = Psychological Well-Being, Au = Autonomy, EM = Environment Mastery, PRO = Positive Relations with Others, PL = Purpose in Life, PG = Personal Growth, SA = Self-Acceptance, EWB = Emotional Well-Being, Hap = Happiness, SWB = Social Well-Being, SAc = Social Actualization, SCon = Social Contribution, SCoh = Social Coherence, SInt = Social Integration, PMH = Positive

Mental Health, PsAd = Psychological Adjustment, CM = Commitment Making, IWC = Identification with Commitment, EB = Exploration in Breadth, ED = Exploration in Depth, RE = Ruminative Exploration, FP = Family Process, O = Organization, CE = Career Exploration, VI = Vocational Identity, Sp = Spirituality, PFC = Problem-Focused Coping, EFC = Emotion-Focused Coping; PSt = Perceived Stigma, GD = Gambling Disorder, An = Anxiety, DS = Depressive Symptoms, S = Stress, TS = Trauma Severity.

*Qualitative Evaluation of Personal Growth Initiative*

Only one study was found that qualitatively evaluated the relationships of the PGI phenomenon (Bhattacharya & Mehrotra, 2013). In this study, interviews were conducted with two focus groups of university students, in order to investigate the relationships of PGI with the individual's perceptions of their identity, development of personal change, and goals established. It was observed that PGI was associated with the university students' positive perceptions of their identity, consciously making beneficial personal changes, and with the achievement of the goals established by them. The findings of this study highlighted the role of PGI in making personal changes and developing self-evaluations congruent to the identity of the individual (Bhattacharya & Mehrotra, 2013).

*Interventions for Personal Growth Initiative Promotion*

Personal growth initiative was also used as the outcome variable to investigate the impact of interventions designed to promote self-knowledge and the development of skills related to PGI (Robitschek, 1997; Thoen & Robitschek, 2013; Wang & Tien, 2011). The results of the studies presented below indicate that the interventions developed were effective

in promoting the development of skills related to PGI (Robitschek, 1997; Thoen & Robitschek, 2013; Wang & Tien, 2011).

Robitschek (1997) developed an intervention consisting of a retreat lasting eight to 15 days, performed with participants of a self-knowledge course. The activities were carried out in groups and involved climbing, canoeing and excursions in the forest. The purpose of the retreat was to motivate the participants to recognize their limitations, to work in teams and to develop skills related to PGI. The impact of the intervention was evaluated through a quasi-experimental design, with only the intervention group being evaluated. Participants responded to questionnaires one month before the retreat, at its conclusion, and three months after the end of the retreat. Personal growth initiative was measured by means of the PGIS. It was shown that the intervention promoted an increase in the PGI indices, which remained stable three months after the end of the intervention (Robitschek, 1997).

The intervention developed by Thoen and Robitschek (2013) was directed toward university students. In this study an experimental design was used to investigate the impact of the intervention. For this, the participants were randomly assigned to four conditions: a) psychoeducation regarding PGI and activities for personal growth; b) reading of a text about storms and activities for personal growth; psychoeducation regarding PGI and family activity; c) reading a text about storms and family activity (Thoen & Robitschek, 2013). The four conditions of the intervention were individually developed over the course of one week. Participants completed the questionnaires at the beginning and end of the study, with the period of one week between the applications. The overall score of the PGIS-II was used to investigate the PGI indices. It was observed that the condition that combined psychoeducation

regarding PGI and the development of activities for personal growth was the most effective in promoting skills related to PGI (Thoen & Robitschek, 2013).

Wang and Tien (2011) conducted an intervention to promote PGI among professionals working in the areas of health, education, commerce, and industry. An experimental design was used to investigate the impact of the intervention. Participants were randomly selected to participate in an intervention to promote PGI, which was composed of six to eight sessions, or to participate in one or two sessions of career guidance (Wang & Tien, 2011). Participants responded to questionnaires only after participating in the interventions. The PGIS was applied to investigate the PGI indices. The intervention developed by Wang and Tien (2011) was effective for the development of PGI.

## Discussion

In the present study it was demonstrated that studies about PGI have shown a gradual increase since the 1990s, at which time Robitschek (1997) initiated the systematic study of PGI and developed the PGIS (Robitschek, 1998) This growth has been most notable in the last eight years (2007-2014), the period in which 80.4% of the publications are condensed (see Figure 1).

The studies found in this systematic review focused on investigating the psychometric properties of the instruments used to evaluate PGI, relations between PGI and other variables related to well-being, and the impact of interventions that seek to promote PGI. It was observed that the population investigated in more than half of the studies published was the university student population (33 studies, 70%), and that the majority of these studies were

conducted in the USA (26 studies, 55%) (See Table 1). These results suggest that the samples evaluated could present high levels of homogeneity. The homogeneity of the samples investigated in different studies regarding PGI can reduce the possibility of the findings being generalized to different contexts and populations, as well as the results being used to develop interventions that address the positive development of the participants. Furthermore, no studies were found that had been conducted in Latin America or Oceania. Thus, there is a need to investigate the PGI phenomenon in different contexts and locations.

The studies that investigated the psychometric properties of the PGIS showed that the scale did not present a stable structure. The lack of stability of the scale when used in different populations suggested the need to review the items that compose it, which motivated Robitschek to develop the revised version (PGIS-II) of the scale (Robitschek et al., 2012).

Regarding the studies that investigated the psychometric properties of the PGIS-II, these demonstrated the multifactorial structure of the scale, indicating the existence of the four constructs that compose PGI (Robitschek et al., 2012). The adaptation studies of the PGIS-II showed the stability of the four-factor structure in China (Yang & Chang, 2014); the USA (Weigold et al., 2014; Yakunina et al., 2013a); and Turkey (Yalcin & Malkoc, 2013).

The results of the study by Weigold et al. (2013) demonstrated that the structure of the North-American version of PGIS-II is invariant, even when different methods of data collection (pen and paper vs. online) are used. Analyzed jointly, the results of this study, coupled with the validity evidence of the multifactor structure of the PGIS-II (Robitschek et al., 2012; Weigold et al., 2014; Yakunina et al., 2013a; Yalcin & Malkoc, 2013; Yang & Chang, 2014) indicate the potential of the PGIS-II for use in evaluating PGI.

Despite the evidence for the stability of the multifactorial structure of the PGIS-II (Weigold et al., 2013b; Weigold et al., 2014; Yakunina et al., 2013; Yalcin & Malkoc, 2013; Yang & Chang, 2014), this structure was not observed in the Indian sample (Bhattacharya & Mehrotra, 2014). The impossibility for Bhattacharya and Mehrotra (2014) to evidence the four-factor structure of the PGIS-II could be due to either instability in the scale, or specific cultural questions related to the Indiana culture. Therefore, other studies using the PGIS-II in different cultures are needed to evaluate the extent to which the PGIS-II can maintain its theoretically stipulated multifactorial structure in different contexts. If the results found by Bhattacharya and Mehrotra (2014) are replicate in future studies, it is possible that there is a need for sensitive items to be developed to evaluate the dimensions that compose PGI in different cultures.

In this review, some studies developed with the PGIS-II used the overall score to evaluate PGI (Sharma & Rani, 2013, 2014; Thoen & Robitschek, 2013; Yakunina et al., 2013b). The use of the overall score of the PGIS-II to evaluate PGI is a procedure recommended by Robitschek et al. (2012). However, in the studies that evaluated the structure of the PGIS-II (Robitschek et al., 2012; Weigold et al., 2014; Yakunina et al., 2013a; Yalcin & Malkoc, 2013; Yang & Chang, 2014) there was no evidence for the existence of an overall score being a factor greater than the four independent PGI dimensions. The absence of evidence to support the comprehension of an overall PGI score makes it impossible to use this as a general indicator of PGI. Thus, it is suggested that the results of the studies investigating the overall PGI score are carefully analyzed. Similarly, it is suggested that further studies

evaluate the plausibility of the PGIS-II presenting a hierarchical structure, with a second-order general factor (PGI).

Regarding the psychometric properties of the PGIS and PGIS-II and the use of the adapted versions, studies were found that used scales without citing whether the adaptation process of the scale was conducted (India, Sharma, & Rani, 2013, 2014; Sharma et al., 2011; Israel, Barak & Achiron, 2011; Nigeria, Lasun & Odufowokan, 2012; Ogunyemi & Mabekoje, 2007; Oluyinka, 2011; Pakistan, Ayub & Iqbal, 2012; Romania, Negovan, 2010; Negovan & Bogdan, 2013; Singapore, Vaingankar et al., 2011). The absence of unification of the findings has a negative impact on the comprehension of the PGI phenomenon. For example, in the studies in India, different versions of the PGIS-II were used (four-factor structure, Sharma & Rani, 2013, 2014; Sharma et al., 2011; two-factor structure, Bhattacharya & Mehrotra, 2014). The realization of the adaptation and the evaluation of the psychometric properties of an instrument are processes that are essential to demonstrate the reliability of the instrument used. The use of instruments that have not been adequately adapted and validated to the cultural context in which they are used limits the methodological quality of the study. Furthermore, this practice reduces the reliability and generalizability of the results encountered.

With regard to the relationship of PGI with external variables, PGI and its dimensions (readiness for change, planfulness, using resources, and intentional behavior) were positively associated with the variables related to a state of increased well-being (e.g., positive affect, and psychological, social and emotional well-being), and negatively related to factors associated with states of lower levels of well-being (e.g., stress, anxiety and depression). The

relationship pattern of PGI and its dimensions with the variables evaluated in the studies cited in the present article show that PGI, in fact, appears as an aspect of the personal growth dimension of psychological well-being (Ryff & Keyes, 1995).

The skills present in PGI are also associated with the person's ability to evaluate adverse and stressful situations as challenges and opportunities for personal growth, so that they experience lower levels of stress when coping with these situations (Weigold & Robitschek, 2011; Yakunina et al., 2013b). Furthermore, readiness for change and using resources may intensify the individual's search for new experiences that contribute to their personal development. The possibility of experiencing a variety of situations enhances the chances of people strengthening their social and emotional support network, as well as experiencing positive situations more frequently compared to individuals with low PGI indices (Yakunina et al., 2013b). These relationships demonstrate the impact of the PGI skills on evaluations of the experiences faced by individuals, showing that PGI can also be comprehended as a personal resource.

The comprehension of PGI as a set of skills that can be developed was evident in the interventions that were effective in promoting PGI (Robitschek, 1997; Thoen & Robitschek, 2013; Wang & Tien, 2011). The use of PGI as the outcome variable also demonstrated the sensitivity of the PGIS (Robitschek, 1997; Wang and Tien, 2011) and PGIS-II (Robitschek & Thoen, 2013) in evaluating changes in PGI levels over time.

Although this study provides important information about the PGI construct, it has its limitations. The language of the articles included was the main limitation of this review, since the review included only articles written in English, Spanish or Portuguese. This language

limitation may restricted the acess for publications of others countries. This criterion was used to gain a better comprehension of the studies and to valorize those that can be accessed by the majority of researchers

Since the use of articles was limitated by the author language limitations, only articles written in Portuguese, Spanish or English were used.

This review contributes by presenting a comprehensive overview of studies on the PGI construct. Future researches should test the validity of the PGIS-II in different samples, such as with clinic patients, or across cultures. Moreover, longitudinal studies should be developed to assess the existence of causal relationships between PGI dimensions, personal features and well-being.

## Final Considerations

Personal growth initiative is characterized by the skills of individuals to intentionally seek opportunities to mature and realize personal changes that will enable their positive development (Robitschek et al., 2012). The results of the studies analyzed in this review indicated that PGI plays a crucial role for individuals to experience increased levels of well-being, develop themselves positively and adapt to adverse situations.

It was also evidenced that PGI constitutes a personal resource. For example, in the study by Barak and Achiron (2011) no significant differences were observed between the levels of PGI among patients with multiple sclerosis and people who were not diagnosed with this syndrome. Furthermore, the potential was demonstrated for this personal resource to be

promoted by interventions focused on the development of PGI related skills (Robitschek, 1997; Thoen & Robitschek, 2013; Wang & Tien, 2011).

The results of the studies mentioned above highlight the importance of developing effective intervetions for the development of PGI related skills as a strategy to promote higher levels of well-being, as well as expand the individuals' abilities to overcome adversities. Also, PGIS-II may be used to assess how personal growth dimensions act on the process of self-improvement. Theis would help researches and health professionals to identify to what extent cognitive and behavioral features impact in the positive development of individuals.

The universality of PGI was observed in studies performed in different contexts (Bhattacharya & Mehrotra, 2014; Robitschek et al., 2012; Weigold et al., 2014; Yakunina et al., 2013a; Yalcin & Malkoc, 2013; Yang & Chang, 2014). However, the limited range of the samples investigated and the non-use of the version of the PGIS-II adapted to the cultural context analyzed limited comprehension of the PGI phenomenon. Thus, there is a need to develop studies that evaluate the structure of the PGIS-II in different cultures, and that seek to investigate comprehensive samples, which include different groups present in the general population.

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# CAPÍTULO III

## ARTIGO II

## Personal Growth Initiative Scale - II: Adaptation and Psychometric Properties of the Brazilian Version[2]

Clarissa Pinto Pizarro de Freitas[1]
Bruno Figueiredo Damásio[2]
Patricia Renovato Tobo[3]
Helder Hiroki Kamei[4]
Sílvia Helena Koller[5]
Christine Robitschek[7]

[1] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).

[2] PhD in Psychology, Professor of the Department of Psychometrics of the Institute of Psychology of the Federal University of Rio de Janeiro (UFRJ).

[3] PhD in Biotechnology, Manager of Natura Innovation – Advanced Research in Sciences of Well-being.

[4] MSc in Psychology, Researcher of Natura Innovation – Advanced Research in Sciences of Well-being.

[5] PhD in Education, Professor in Post-Graduate Program in Psychology of the Federal University of Rio Grande do Sul (UFRGS) and Coordinator of Center of Psychological Studies – CEP-Rua.

[7] PhD in Educational Psychology, Associate Professor in Psychology Department of the Texas Tech University and Coordinator of Personal Growth Initiative Lab.

[2] Manuscrito submetido para publicação.

Abstract

This study aimed to adapt and assess the psychometric properties of the Brazilian Version of the Personal Growth Initiative Scale II (PGIS-II). Participants were a nationwide sample of 2149 subjects (64.8% women), aged 18 to 88 years ($M$ = 37.91, $SD$ = 10.78). Exploratory factor analysis supported the first-order four-factor structure of the scale (readiness for change, planfulness, using resources, and intentional behavior). Confirmatory factor analyses (CFA) supported the first-order four-factor structure as being the most reliable to the data. Multigroup CFA achieved full measurement invariance for the gender and age (youngsters, adults and elderly) groups. Personal Growth Initiative (PGI) dimensions were positively related to optimism, presence of meaning in life, and life satisfaction and were negatively related to pessimism. PGIS-II presented adequate psychometric properties, suggesting its usefulness in evaluating personal growth initiative in the Brazilian context.

*Keywords*: Personal growth initiative; scale; validation; multigroup confirmatory factor analysis; Brazil.

This study aimed to adapt and assess the psychometric properties of the Brazilian Version of the Personal Growth Initiative Scale II (PGIS-II). Personal growth initiative (PGI) refers to the active and intentional engagement of the individual in his/her process of self-improvement (Robitschek, 1998). The process of personal change may be characterized by affective, cognitive or behavioral changes, which can occur in various dimensions of one's life. High levels of PGI help the individual identify or create opportunities that enable or boost his/her positive personal development (Robitschek et al., 2012).

A cognitive and a behavioral dimension constitute the PGI. The cognitive dimension includes the identification and planning process of personal changes that the individual wishes to achieve. The dimensions 'readiness for change' and 'planfulness' comprise the cognitive factor of PGI. Readiness for change refers to the individual skills to identify opportunities that may promote personal growth. Planfulness may be understood as the person's ability to organize strategies that enable his/her self-improvement. The behavioral dimension is constituted by the factors 'intentional behavior' and 'using resources'. Intentional behavior covers the deliberate actions taken to enact plans for self-improvement of an individual to persist in the achievement of his/her own goals of self-improvement. Using resources, in turn, is identified in the behaviors of seeking external or internal resources of individuals (e.g., ask for help from others), which may promote personal growth (Robitschek et al., 2012).

Studies have shown that individuals with higher levels of PGI may be more persistent in the process of environment exploration, as well as opportunities for personal growth (Yakunina et al., 2013). High levels in the PGI dimensions are positively related to the maintenance and development of positive interpersonal relations, adaptive coping skills to

address stressors and challenges faced during the lifespan (Robitschek et al., 2012). Furthermore, PGI factors are positively associated to higher levels of well-being and negatively related to stress (Yakunina et al., 2013).

The role of PGI in several markers of human´s well-being highlights the importance of measuring PGI through reliable instruments. The first scale designed to assess this construct was the Personal Growth Initiative Scale (PGIS). Nine items in a unidimensional structure composed the scale. The final version of PGIS presented adequate internal consistency ($\alpha$ = .90) and fit indices for the unidimensional structure ($\chi^2$ (27) = 61.5, $p$ < .001, CFI = .95, NFI = .93). Furthermore, the PGIS showed a test-retest reliability index of .74 after a period of two months (Robitschek, 1998).

Despite the adequate factor structure, temporal stability, and convergent validity of the PGIS, this instrument does not investigate the various dimensions of PGI (e.g., cognitive and behavioral). To evaluate the PGI dimensions, Robitschek et al. (2012) created the Personal Growth Initiative Scale – II (PGIS-II). Sixteen items, divided into the following four factors, comprise the PGIS-II: readiness for change; planfulness; using resources; and intentional behavior. In the development and validation study (Robitschek et al., 2012), the first-order four-factor structure of the PGIS-II showed adequate fit indices S-B$\chi^2$ (33) = 1356.7, $p$ < .001, SRMR = .09, RMSEA = .07 (90% CI = .07 – .08). Additionally, satisfactory test-retest reliability indices were observed, ranging from .73 (using resources) to .81 (planfulness), in a one to six week time interval. Internal consistency was also adequate (readiness for change, $\alpha$ = .83, planfulness, $\alpha$ = .84, using resources, $\alpha$ = .80 and intentional behavior, $\alpha$ = .89) (Robitschek et al., 2012).

Studies with various cultural groups (such as African American and International College students) demonstrated that the North American version of the PGIS-II showed a satisfactory first-order four-factor structure for the scale. The four first-order dimensions explained the dimensions readiness for change, planfulness, using resources, and intentional behavior of Personal Growth Initiative (Weigold, Weigold, Russell, & Drakeford, 2014; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013). The same first-order four-factor structure of the PGIS-II was also observed in the Chinese and Turkish versions of the scale (Yalcin & Malkoc, 2013; Yang & Chang, 2014).

The results of previous studies (Robitschek et al., 2012; Yakunina et al., 2013; Yang & Chang, 2014) suggest that the PGIS-II is a reliable instrument to evaluate the dimensions of PGI. Therefore, this study aimed to adapt and investigate the psychometric properties of the Brazilian version of PGIS-II.

## Method

### *Adaptation Process of the Scale*

The adaptation process of the Brazilian version of the PGIS-II was based on the guidelines provided by Borsa, Damásio and Bandeira (2012). Initially, the questionnaire was translated from English to Portuguese by two independent researchers. Two translated versions were synthesized into a preliminary adapted version. This adapted version was evaluated by a target population ($n$ = 12) and by a group of researchers, psychologists and experts in the fields of psychometrics and positive psychology.

This adapted version was then back-translated from Portuguese to English by two other independent translators, and again, the study authors conducted a synthesis of the back-

translations. This synthesized back-translated version was evaluated by the group of experts and the author of the original PGIS-II. They verified that the translated and back-translated versions were culturally adapted, as well as semantically and idiomatically equivalent to the original version of the scale.

*Participants*

A total of 2149 subjects (64.8% women), aged 18 to 88 years ($M$ = 37.91, $SD$ = 10.78) participated in this study. Of the total, 838 (39%) were young adults, 967 (45%) were adults, and 344 (16%) were elderly. The age groups were defined according to the Brazilian Institute of Geography and Statistics guidelines (IBGE, 2010), specifically: Young, 18 to 29 years old; adults, 30 to 59 years old; and elderly, more than 60 years old. Among the participants, 46% were single, 30% married, 8% divorced, 11% in a stable relationship (dating, engaged, or living with a partner), and 3% widowed.

*Instruments*

*Sociodemographic Questionnaire:* This instrument was developed to assess the sociodemographic characteristics of the sample (e.g., gender, age, marital status, educational level, financial income, religiosity/spirituality, presence or absence of chronic illness and/or special needs).

*Personal Growth Initiative Scale* – II (PGIS-II, Robitschek et al., 2012): The PGIS-II is a 16-item Likert-type scale (ranging from 0 – Disagree strongly to 5 – Agree strongly) with four items assessing readiness for change, four items assessing planfulness, three assessing use of

resources and three assessing intentional behavior. In the original study, the scale presented satisfactory goodness-of-fit indexes: S-b$\chi^2$ (33) = 1356.7, $p$ < .001; SRMR = .09; and RMSEA = .07 (90% CI = .07 – .08).

*Satisfaction with Life Scale* (SWLS, Diener, Emmons, Larsen, & Griffin, 1985; Brazilian version adapted by Gouveia, Milfont, Fonseca, & Coelho, 2009): The SWLS is a 5-item Likert-type scale (ranging from 1 – totally disagree to 7 – totally agree) and assesses life satisfaction by a single-factor solution. In this sample, the following goodness-of-fit indexes of the instrument were excellent, suggesting the adequacy of the scale: CFI = .99; TLI = .99; and RMSEA = .07 (90% CI = .05 – .08).

*Life Orientation Test-Revised* (LOT-R, Scheier, Carver, & Bridges, 1994; Brazilian version adapted by Bastianello, Pacico, & Hutz, 2012): The LOT-R evaluates one´s levels of optimism and pessimism. It is composed of ten items (4 fillers), answered on a five-point Likert scale (0 – totally disagree, 4 – totally agree). In this study, the bi-factorial (pessimism and optimism) solution presented excellent goodness-of-fit indexes: CFI = .97; TLI = .95; and RMSEA (90% CI) = .11 (.09 – .12).

*Meaning in Life Questionnaire – Presence of Meaning subscale* (MIL-P, Steger et al., 2006; Brazilian version adapted by Damásio & Koller, 2015): The MIL-P is a 5-item instrument that assesses the levels of meaning in life. Participants answer items through a seven point Likert-type scale (ranging from 1 – totally false to 7 – totally true). In the current study, the MIL-P

presented satisfactory goodness-of-fit indexes: CFI = .99; TLI = .99; and RMSEA = .08 (90% CI = .07 – .10).

*Procedures*

Participants were accessed through divulging the research using various sources, such as personal and social media invitations, a Market Research Company, recruitment within social and occupational institutions (specifically adults and elderly). Of the total, 60% answered the questionnaires in a web-based platform, whereas the remaining 40% responded to the questionnaires in the paper-and-pencil form. An imputation strategy for the Weighted Least Squares Mean and Variance-Adjusted (WLSMV) estimation method using a polychoric correlation matrix was implemented on participants' data with at most 10% of missing variables on each questionnaire (Asparouhov & Múthen, 2010). According to this procedure, data were imputed for 100 participants (4.7% of the cases).

*Data Analysis*

*Exploratory Factor Analysis*

To evaluate the factor structure of PGIS-II, three extraction criteria were utilized: theoretical assumptions (PGI construct is constituted by four dimensions); factors' eigenvalues (factors with eigenvalue higher than 1, Kaiser, 1960), and Parallel Analysis (Hayton, Allen, & Scarpello, 2004; Horn, 1965). The number of factors to be retained was based on the results of the three extraction criteria, in a way that, if necessary, more than one model would be assessed.

After deciding the number of factors to be retained, an Exploratory Structural Equation Modeling (ESEM, Asparouhov & Múthen, 2009), using the Weighted Least Squares Mean and Variance-Adjusted (WLSMV) estimation method with an oblique rotation (Geomin) were performed. The ESEM refers to an analysis that integrates the features of the Exploratory Factor Analyses (EFA) and Confirmatory Factor Analyses (CFA). This method enables to analyze different factorial solutions previously defined through an exploratory analyses. Since the ESEM also covers the CFA features, the measurement error of the model is controlled and the CFA model fit estimation are presented (Asparouhov & Muthén, 2009). The WLSMV is an estimation method that is sufficiently robust for ordinal (Muthén & Muthén, 2010). The oblique rotation (Geomin) was applied, allowing the correlation of factors on the multi-factorial solution. The number of factors extracted on the ESEM was based on the theoretical assumptions (Robitschek et al., 2012), eigenvalues (Kaiser, 1960) and parallel analysis criteria (Hayton et al., 2004).

The goodness-of-fit indexes of the PGIS-II were assessed through the following fit indices: comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). According to the guidelines used, CFI and TLI values should be greater than .90, preferably higher than .95, RMSEA values should be less than .08 to indicate acceptable fit (with a 90% confidence interval not greater than .10), and SRMR values should be closer to .00, with values below .80 considered acceptable (Brown, 2006). The ESEM was conducted with an independent proportion (*n1* = 839) of the total sample (*n* = 2.149).

*Confirmatory and Multigroup Factor Analyses*

To confirm the most adequate structure of the PGIS-II, three confirmatory factor analyses (WLSMV estimation method) with a second independent sample ($n_2$ = 1249) of the total sample ($n$ = 2149) were employed. The first model evaluated the fit indexes of the one-dimension structure, in which the 16 items loaded onto a general PGI factor. The second model assessed a correlated first-order four-factor solution for the PGI (readiness for change, planfulness, using resources and intentional behavior). The third model was a second-order structure in which all four factors loaded onto a higher-order factor of PGI. These data analysis procedures were recommended by the scale author (Robitschek et al., 2012) and were used in previous studies on the PGIS-II factor structure (Weigold, Weigold, Russell, & Drakeford, 2014; Yakunina et al., 2013; Yalcin & Malkoc, 2013; Yang & Chang, 2014).

The fit indices were the following: CFI (> .90), TLI (> .90), and RMSEA (< .08, with the 90% confidence interval not exceeding .10) (Brown, 2006). Modification indices (MI) were also analyzed to identify the sources of problems in the model specification. Values of MI higher than 50.00 were evaluated, because they are indicative of model misspecification (Brown, 2006).

After achieving the most adequate structure of the PGIS-II, multigroup confirmatory factor analyses (MGCFAs) with the total sample were performed to test the measurement invariance of the scale for gender (female, $n$ = 1393; male, $n$ = 756) and for various age groups (young, $n$ = 838; adult, $n$ = 967; and elderly, $n$ = 344). Measurement invariance was evaluated by testing configural, metric and scalar invariance, in a hierarchical way, so that a more restricted model was compared to a less restricted model (Damásio & Sousa, *in press*).

According to model restriction, the configural model was compared to the metric model, and the metric model was compared to the scalar model.

The models were evaluated based on the CFI (> .90), TLI (> .90), and RMSEA (< .08, with the 90% confidence interval not exceeding .10) fit indices. Measurement invariance was assessed based on the CFI difference values between the models (ΔCFI) (Brown, 2006). Measurement invariance is achieved if ΔCFI is lower than .01 (Δ*CFI* < .01) (Damásio & Sousa, *in press*).

*Reliability*

The scale reliability was assessed after defining the PGI-II factor structure. The reliability of the scale was assessed trough Cronbach's alpha. Values of Cronbach's alpha higher than .70 were considered acceptable.

*Convergent Validity*

Convergent validity was assessed by the relationships of readiness for change, planfulness, using resources and intentional behavior with life satisfaction, search and presence of meaning in life, optimism and pessimism. The correlations were investigated through a structural equation model to control the measurement error of the model. Several hypotheses were tested simultaneously in the correlations analyses. In order to avoid family-wise error the Bonferroni correction was applied. We expected positive and low-to-moderate correlations among PGI dimensions with life satisfaction, presence of meaning in life and optimism. PGI dimensions should present negative and low-to-moderate correlations with pessimism.

# Results

*Exploratory Factor Analysis*

The results of the parallel analysis (Hayton et al., 2004; Horn, 1965) suggested a one-dimensional structure for the PGIS-II as the most reliable to the data, whereas Kaiser´s criterion (eigenvalue > 1) suggested 4 factors. The values of eigenvalues were: 7.66 for Factor 1; 1.53 for Factor 2; 1.10 for Factor 3; and 1.07 for Factor 4. By considering the most parsimonious model, the ESEM was conducted evaluating a one-dimensional structure and a four-factor structure for the PGIS-II. The results of the one-dimensional structure showed that all 16 items loaded significantly onto the dimension. However, fit indexes were not adequate (See Table 1).

Considering this result and considering that theoretically the PGIS-II must be conceptualized as a four-factor structure, the results of the four-factor model were analyzed to verify the extent to which this solution would match the original structure (Robitschek et al., 2012). The first-order four-factor structure was satisfactory and presented adequate fit indexes (See Table 1). The items loaded on the expected dimensions, with the exception of items 12 and 13. Item 12, originally in the dimension ‘using resources’, showed higher factor loading on the dimension ‘intentional behavior’. Item 13, originally in the dimension ‘planfulness’, showed higher factor loading on the dimension ‘readiness for change’. Additionally, cross-loadings were observed in items 4, 2 and 10 (See Table 1). Moreover, the factors were significantly correlated (readiness for change with planfulness, $r$ = .60, readiness for change with using resources, $r$ = .30, readiness for change with intentional behavior, $r$ = .57, planfulness with using resources, planfulness with intentional behavior, $r$ = .52, $r$ = .30, using resources with intentional behavior, $r$ = .42).

Table 1. *Exploratory Factorial Analysis of One-Dimensional Structure and First-Order Four-Factor Structure of the PGIS-II*

| **Items** | **Model 1** | **Model 2** | | | |
|---|---|---|---|---|---|
| | **Item Loading** | **Item Loading /Facto** | | | |
| | **PGI** | **RC** | **Pla** | **IB** | **UR** |
| Item 1 (I set realistic goals for what I want to change about myself) | **.66*** | - .08* | **.73*** | .06 | .05 |
| Item 2 (I can tell when I am ready to make specific changes in myself) | **.70*** | **.34*** | **.53*** | - .04 | - .01 |
| Item 3 (I know how to make a realistic plan to change myself) | **.80*** | .11* | **.84*** | - .02 | - .04 |
| Item 4 (I take every opportunity to grow as it comes up) | **.57*** | - .09* | **.33*** | **.53*** | - .05* |
| Item 5 (When I try to change myself, I make a realistic plan for my personal growth) | **.81*** | .02 | **.77*** | .14* | .04 |
| Item 6 (I ask for help when I try to change myself) | **.53*** | - .07* | .05* | -.02 | **.83*** |
| Item 7 (I actively work to improve myself) | **.70*** | .09* | .26* | **.47*** | .10* |
| Item 8 (I figure out what I need to change about myself) | **.53*** | **.53*** | - .11* | .13* | .11* |
| Item 9 (I am constantly trying to grow as a person) | **.63*** | .11* | .01 | **.72*** | - .04 |
| Item 10 (I know how to set realistic goals to make changes in myself) | **.80*** | **.34*** | **.59*** | .02 | .01 |
| Item 11 (I know when I need to make a specific change in myself) | **.76*** | **.88*** | .02 | - .01 | - .04 |
| Item 12 (I use resources when I try to grow) | **.66*** | .24* | .20* | **.30*** | .17* |

| | | | | | |
|---|---|---|---|---|---|
| Item 13 (I know steps I can take to make intentional changes in myself) | **.74*** | **.58*** | .28* | - .01 | .02 |
| Item 14 (I actively seek help when I try to change myself) | **.58*** | .07* | - .03* | .02 | **.91*** |
| Item 15 (I look for opportunities to grow as a person) | **.68*** | .01 | - .02 | **.87*** | .04 |
| Item 16 (I know when it's time to change specific things about myself) | **.76*** | **.76*** | .07* | .07 | - .03 |

**Model 1 - One-Dimensional Structure of the PGIS-II**

| $\chi^2$(gl) | CFI | TLI | RMSEA (90% CI) | SRMR |
|---|---|---|---|---|
| 3492.42* (104) | .83 | .80 | .20 (.19 – .20) | .09 |

**Model 2 - First-Order Four-Factor Structure of the PGIS-II**

| $\chi^2$(gl) | CFI | TLI | RMSEA (90% CI) | SRMR |
|---|---|---|---|---|
| 447.99* (62) | .98 | .96 | .08 (.08 – .09) | .02 |

*Note: * p < .05, n = 839, Model 1 = One-Dimensional Structure of the PGIS-II, Model 2 = First-Order Four-Factor Structure of the PGIS-II, RC = Readiness for Change, Pla = Planfulness, IB = Intentional Behavior, UR = Using Resources.*

*Confirmatory Factor Analysis*

Based on the inconsistencies of the ESEM results, three models for the PGIS-II were tested in an independent sample ($n$ = 1249): Model 1 assessed a one-dimension structure, with all 16 items loading onto a general PGI factor; model 2 evaluated the theoretically based first-order four-factor correlated structure, in which the items loaded onto readiness for change, planfulness, using resources and intentional behavior; and model 3 assessed a second-order structure, with items loading on their expected theoretical dimensions, and the four factors loaded onto a higher-order factor of PGI. The second ESEM model previously achieved was not evaluated, as it does not represent any theoretical perspective.

The results of the first CFA showed mediocre goodness-of-fit indexes for the PGIS-II unifactorial solution (see Table 2). The second model, which assessed a first-order four-factor structure for the PGIS-II, with all 16 items loading on their expected theoretical dimension, allowing the factors to correlate, also presented unacceptable fit indexes (see Table 2). The third model (higher-order four-factor solution, in this model the factors were not allowed to correlate), also presented unacceptable fit indexes (see Table 2). For all three models, modification indexes suggested the inclusion of error covariances for the following item pairs: 6-14 ($MI_{M1}$ = 2977.38, $MI_{M2}$ = 1357.71, $MI_{M3}$ = 395.33) and 2-3 ($MI_{M1}$ = 173.44, $MI_{M2}$ = 111.03, $MI_{M3}$ = 263.91). Both items 6 (‘I ask for help when I try to change myself’) and 14 (‘I actively seek help when I try to change myself’) refer to the use of external resources in the process of self-improvement. Items 2 (readiness for change – ‘I can tell when I am ready to make specific changes in myself’) and 3 (planfulness – ‘I know how to make a realistic plan to change myself’) aim to evaluate self-perceptions about the change process of the

individual. The overlap content of these two pairs of items might be an explanation for the residual correlation.

Table 2 shows that the inclusion of error covariance between item pairs 2-3 and 6-14 improved the goodness-of-fit indexes of the three models evaluated. The results indicated that the second model (M2), which assessed the first-order four-factor structure model, presented the best fit index.

Finally, chi-square difference test analyses ($\Delta\ \chi^2$) were conducted to verify if goodness-of-fit indexes of model 2 were significantly different from the indexes of models 1 and 3. A comparison of model 1(considering the correlated errors) with model 2 (considering the correlated errors) and model 3 (considering the correlated errors) with model 2 (considering the errors correlated) showed that model 2 had goodness-of-fit indexes significantly better than the other models (respectively $\Delta\chi^2 = 1161.79$ (6), $p < .001$, $\Delta\ \chi^2 = 145.59$ (2), $p < .001$).

Table 2. *Goodness-of-Fit Indexes of the Brazilian Version of PGIS-II (n = 1249)*

| Model | $\chi^2$(df) | CFI | TLI | RMSEA (90% CI) |
|---|---|---|---|---|
| Model 1 | 4475.66 * (104) | .82 | .80 | .18 (.18 – .19) |
| Model 1 (e6–e14 and e2-e3 correlated) | 2355.01* (98) | .91 | .89 | .13(.13 – .14) |
| Model 2 | 2338.73* (98) | .91 | .89 | .13 (.13 – .14) |
| Model 2 (e6–e14 and e2-e3 correlated) | 1185.28* (96) | .95 | .94 | .09 (.09 – .10) |
| Model 3 | 2430.42* (100) | .90 | .88 | .14 (.13 – .14) |
| Model 3 (e6–e14 and e2-e3 correlated) | 1402.95* (98) | .94 | .93 | .10 (.10 – .11) |

Note: * = $p < .05$, Model 1 = Model One-dimension, Model 2 = Model First-Order Four-Factor Structure, Model 3 = Higher-Order Four-Factor Structure

Among all the structures investigated, the results suggest that the first-order four-factor structure model (second model; see Table 2), with error covariances among items 6-14 and 2-3, constitutes the most reliable solution for the Brazilian version of PGIS-II (see Figure 1). All item loadings were satisfactory. The 'readiness for change' factor loadings ranged from .55 to .80, the 'planfulness' factor loadings ranged from .64 to .84, the 'using resources' factor loadings ranged from .47 to .83 and the 'intentional behavior' factor loadings ranged from .70 to .80. The PGI factor correlations presented high magnitudes, especially between 'readiness for change' and 'planfulness' (see Figure 1). Additionally, the effect size of the relationships between PGI dimensions varied from medium to large (readiness for change with planfulness, $r^2 = .77$, readiness for change with using resources, $r^2 = .46$, readiness for change with intentional behavior, $r^2 = .53$, planfulness with using resources, $r^2 = .49$, planfulness with intentional behavior, $r^2 = .61$, intentional behavior with using resources, $r^2 = .64$).

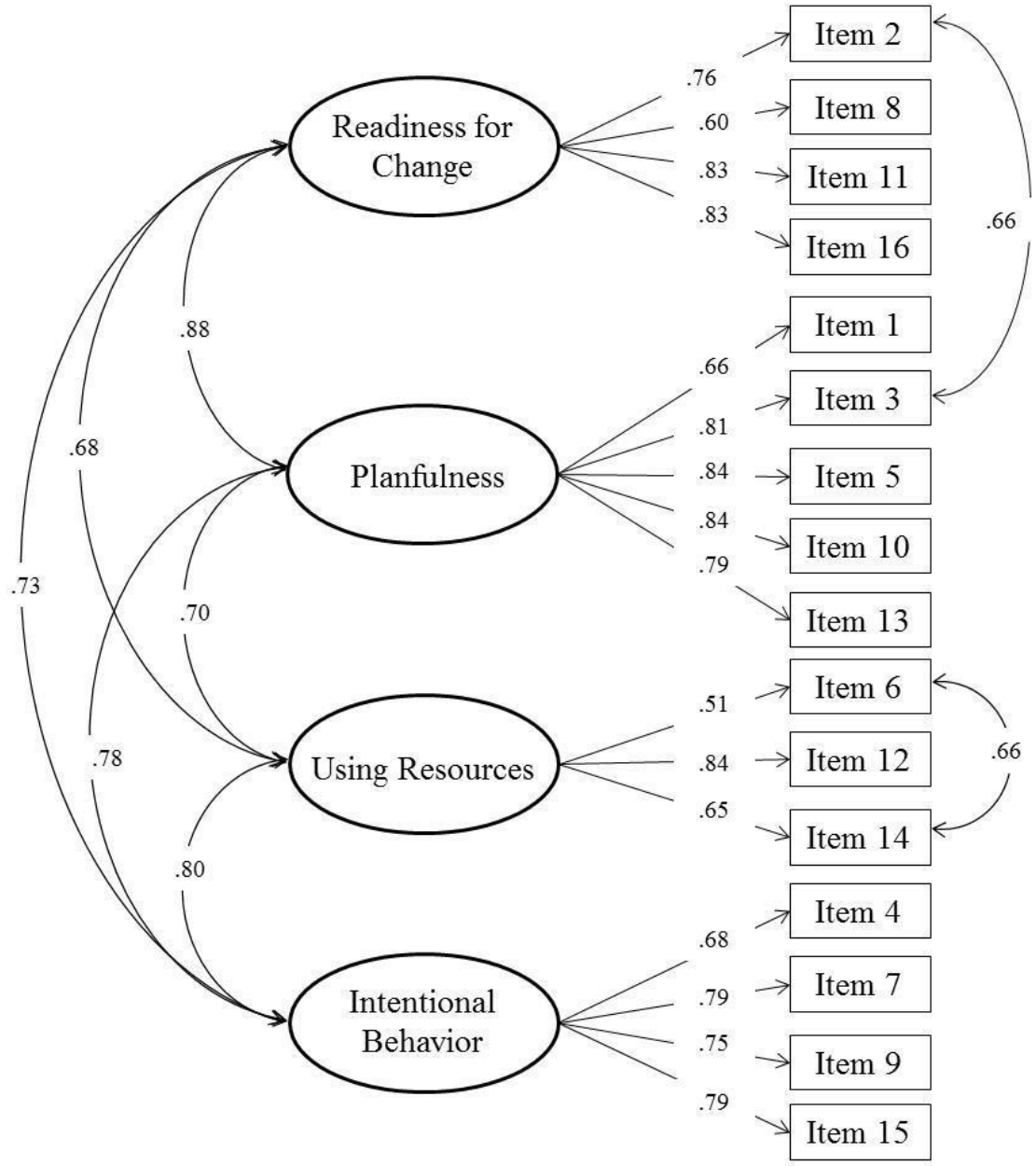


Figure 1. *First-order Four-Factor Structure of the Brazilian Version of the PGIS-II ($n_2$ = 1249)*

*Multigroup Confirmatory Factor Analysis*

Goodness-of-fit indexes of the configural model showed that the first-order four-factor structure of the Brazilian version of PGIS-II was acceptable in the various groups (gender, female and male; age groups, young, adult and elderly). In considering the ΔCFI criteria (Damásio & Sousa, in press), metric and scalar invariance were achieved across all subgroups (male and female, youngsters, adults and the elderly; see Table 3).

Table 3. *Goodness-of-fit indexes of Brazilian version of PGIS-II of MGCFA to Gender and Age Group (n = 2.149)*

| **Gender measurement invariance** | **RMSEA (90% CI)** | **TLI** | **CFI** | **ΔCFI** |
|---|---|---|---|---|
| Male (*n* = 756) | .09 (.08 - .09) | .951 | .961 | - |
| Female (*n* = 1393) | .10 (.09 - .10) | .933 | .947 | - |
| Unconstrained model | .09 (.09 - .10) | .938 | .950 | - |
| Metric invariance | .09 (.08 - .09) | .946 | .954 | .004 |
| Scalar invariance | .07 (.07 - .08) | .965 | .962 | .008 |
| **Age measurement invariance** | **RMSEA (90% CI)** | **TLI** | **CFI** | **ΔCFI** |
| Young (*n* = 838) | .10 (.09 - .10) | .939 | .951 | - |
| Adult (*n* = 967) | .10 (.10 - .11) | .946 | .932 | - |
| Elderly (*n* = 344) | .10 (.09 - .10) | .933 | .946 | - |
| Unconstrained model | .09 (.09 - .10) | .941 | .953 | - |
| Metric invariance | .08 (.08 - .09) | .951 | .958 | .005 |
| Scalar invariance | .07 (.06 - .07) | .968 | .962 | .004 |

*Note: * p < .05*

*Reliability*

Reliability coefficients of the four PGI dimensions were assessed through Cronbach's alpha. The four dimensions presented satisfactory internal consistency values (readiness for change, $\alpha$ = .86, planfulness, $\alpha$ = .79, readiness for change, $\alpha$ = .78, and using resources, $\alpha$ = .75).

*Convergent Validity*

Evidence of convergent validity was investigated using the total sample ($n$ = 2149). Correlations of readiness for change, planfulness, using resources and intentional behavior were significant and in the expected direction with the employed variables (positively associated with optimism, presence of meaning in life, life satisfaction, and negatively associated with pessimism, see Table 4). The magnitude of the effect size of the relations between readiness for change, planfulness, using resources and intentional behavior were medium with optimism (respectively, $r^2$ = .14, $r^2$ = .16, $r^2$ = .14, $r^2$= .31), presence of meaning in life (respectively, $r^2$ = .20, $r^2$ = .25, $r^2$ = .19, $r^2$ = .26), life satisfaction (respectively, $r^2$ = .10, $r^2$ = .14, $r^2$ = .10, $r^2$= .16), and small with pessimism (respectively, $r^2$ = .03, $r^2$ = .08, $r^2$ = .08, $r^2$= .03). Furthermore, the magnitude of the effect size of the relationships of PGI dimensions with personal resources (optimism and presence of meaning in life) and life satisfaction showed higher magnitude, compared to the variables of negative construct, such as pessimism (see Table 4).

Table 4. *Means, Standard Deviation and Correlations (n = 2149)*

| Variable | *M* (*DP*) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1) RC | 3.7 (0.8) | | | | | | | |
| 2) Pla | 3.6 (0.9) | .88* | | | | | | |
| 3) UR | 4.0 (0.8) | .71* | .72* | | | | | |
| 4) IB | 4.0 (0.8) | .72* | .75* | .82* | | | | |
| 5) SWL | 4.7 (0.9) | .31* | .38* | .31* | .40* | | | |
| 6) PML | 3.3 (1.1) | .45* | .50* | .44* | .51* | .54* | | |
| 7) Opt | 3.9 (0.7) | .40* | .47* | .38* | .56* | .53* | .58* | |
| 8) Pes | 2.1 (0.8) | - .18* | - .28* | - .18* | - .34* | - .40* | - .43* | - .67* |

Note: *$p$ < .001, *RC = Readiness for Change, Pla = Planfulness, IB = Intentional Behavior, UR = Using Resources*, SWL = Satisfaction with Life, PML = Presence of Meaning in Life, Opt = Optimism, Pes = Pessimism.

## Discussion

After several factor analyses, a first-order four-factor structure was indicated as the most reliable for our data. The results of this study are similar to that proposed by Robitschek et al. (2012) and observed in other studies (international college students fluent in English, Yakunina et al., 2013; Turkish, Yalcin & Malkoc, 2013; Chinese, Yang & Chang, 2014; North American college students, Weigold et al., 2014). Although a first-order four-factor structure was achieved, modification indexes consistently showed error covariance between items 2 ('I can tell when I am ready to make specific changes in myself') and 3 ('I know how to make a realistic plan to change myself') and 6 ('I ask for help when I try to change myself') and 14 ('I actively seek help when I try to change myself').

A qualitative observation of these item pairs suggests that the items were written in a similar fashion, which may have caused a content overlap between them. Furthermore, error covariance of items 6 and 14 was also observed in an Afrodescendent North American sample (Weigold et al., 2014) and in an international college student sample (predominantly Asian, Yakunina et al., 2013). Those samples share collectivist values in their culture, which may cause a pattern of error covariance. Collectivist cultures valorize community values, familiar unity and member interdependence. Those values may foster the development of an interdependent self (Beilmann & Realo, 2012).

The PGI dimensions showed correlations of high magnitude, as observed in other studies (Robitschek et al., 2012; Yakunina et al., 2013; Yang & Chang, 2014). The effect size of relationships between readiness for change with planfulness and using resources with intentional behavior showed a large magnitude. These patterns of associations evidence the

cognitive and behavioral pillars of PGI, strengthening the multifactorial structure of the PGI construct (Robitschek et al., 2012; Weigold et al., 2013).

The associations of using resources with the other PGI-II dimensions in the Brazilian sample showed higher values than the correlations of using resources with PGI-II factors observed in other samples (Robitschek et al., 2012; Yakunina et al., 2013; Yang & Chang, 2014). This different pattern of relationships of using resources may result from features of Brazilian culture. In general, Brazilians are more emotional expressive and action-oriented than other groups (e.g. like North-American and Asian populations) (Gudykunst, 2003; Fernández, Carrera, Sánchez, Paez & Candia, 2002). These particularities of Brazilian population (*e.g.* high expressiveness and action-oriented behaviors) may originate the different patterns of using resources with others PGI-II dimensions.

Other important difference in the Brazilian sample was that levels of participants on the four PGI dimensions were high. The mean levels of intentional behavior and using resources suggested ceiling effect (See Table 3). It is possible that the ceiling effects results from Brazilians' show high levels of using resources and intentional behavior, because of the high levels of emotional expressive and action-oriented of Brazilians (Gudykunst, 2003; Fernández et al., 2002). Future studies should investigate the inclusion of items more sensitive for this population.

The results of MGCFA evidenced that the PGIS-II showed configural, metric and scalar invariance for gender (male and female) and for age group (young, adult and elderly). These findings suggest that the PGIS-II can be employed in Brazilian males and females of various age groups, from young adults to the elderly (Damásio & Sousa, *in press*). The

internal consistency of the PGI-II dimensions indicated that the scale may be considered a reliable instrument to evaluate PGI.

The effect size of presence of meaning in life associations with the PGIS-II factors presented the highest magnitude when compared to the effect size of correlations between PGI-II dimensions and the other variables. The presence of meaning in life refers to the extent to which people comprehend and see significance in their lives, as well as the degree they perceive themselves to have a purpose or overarching aim in life (Steger, Shin, Shim, & Fitch-Martin, 2013). Theoretically, it is a future-oriented and a cognitive and motivational- based construct. PGI, in turn, refers to the active and intentional engagement of the individual in his/her process of self-improvement. People will use their PGI skills in life domains of greatest importance to them (Robitschek, 2003). Growth and development that are personally important should lead to an increased sense of purpose in life. Although not tested in this study, it is possible that higher levels of PGI promote a higher sense of meaning in life.

Optimism was positively related to readiness for change, planfulness, using resources and intentional behavior, whereas pessimism was negatively associated with PGIS-II factors. Optimism refers to the tendency of the individual to believe that he/she will succeed in reaching their goals and will have positive experiences in life. In contrast, pessimism is characterized by the tendency of the individual to evaluate the future in a negative way and in the belief that he/she will fail to fulfill their tasks (Scheier et al., 1994). The relationships of optimism and pessimism with PGIS-II factors support the comprehension that readiness for change, planfulness, using resources and intentional behavior may have a positive impact on individuals' evaluations about changes experienced in their lives (*e.g.*, job promotion) and

situations faced in their everyday life (*e.g.*, interpersonal relations) (Weigold et al., 2013). For example, persons with higher levels on PGI dimensions may evaluate adverse situations as challenges and opportunities to grow as a person (Robitschek et al., 2012; Weigold et al., 2013).

Finally, the relationship among the PGIS-II factors with SWL evidence that readiness for change, planfulness, using resources and intentional behavior may impact individual levels of well-being. Furthermore, relationship patterns of PGI with personal features (presence of meaning in life and optimism) evidence that PGI dimensions constitute a personal resource (Weigold et al., 2013).

The strengths of the study include the robustness of the data analysis procedures. Exploratory and confirmatory factor analyses were performed with corrections for data non-normality, considering the instrument scores as ordinal and non-scalar variables (for more information, see: Muthén & Muthén, 2010). Another strength of this study was the diversity of the sample, which included participants from various Brazilian states with ages ranging from 18 to 88 years.

The limitations of this study are the exclusive use of self-report instruments and a non-representative sample. The use of a non-representative sample may have biased the presented results. The use of a convenience sampling technique may increases the probability of participants willing to voluntarily collaborate be the ones that are engaged in process of self-improvement and who present higher levels of well-being. Also, the absence of a clinical sample narrows the generalization of the study results. Further studies aiming to replicate and

advance our findings are required. The use of a longitudinal design may also strengthen the knowledge of how the PGI impacts several other well-being related variables.

The major contribution of this study was to present evidence on the validity of the Brazilian version of the PGIS-II. Our results demonstrated the adequacy of the construct validity of the measure, suggesting its possible use in future studies. The use of PGIS-II to assess personal growth dimensions may help researchers and health professionals to identify to what extent cognitive and behavioral features impact the process of self-improvement.

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# CAPÍTULO IV

## ARTIGO III

## The Partial Mediation Effect of Presence of Meaning in Life on the Relationship between Personal Growth Initiative and Subjective Well-being in a Brazilian Sample[3]

Clarissa Pinto Pizarro de Freitas[1]

Bruno Figueiredo Damásio[2]

Patricia Renovato Tobo[3]

Helder Hiroki Kamei[4]

Emily Jean Haddad[5]

Sílvia Helena Koller[6]

[1] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).

[2] PhD in Psychology, Professor of the Department of Psychometrics of the Institute of Psychology of the Federal University of Rio de Janeiro (UFRJ).

[3] PhD in Biotechnology, Manager of Natura Innovation – Advanced Research in Sciences of Well-being.

[4] MSc in Psychology, Researcher of Natura Innovation – Advanced Research in Sciences of Well-being.

[5] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).

[6] PhD in Education, Professor in Post-Graduate Program in Psychology of the Federal University of Rio Grande do Sul (UFRGS) and Coordinator of Center of Psychological Studies – CEP-Rua.

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*Abstract*

This study aimed to investigate the mediation role of presence of meaning in life on the relationship of personal growth initiative dimensions (readiness for change, planfulness, using resources, and intentional behavior) with subjective well-being indicators (life satisfaction, positive and negative affect). The sample was composed by 1903 Brazilian participants (63.8% female), aged from 18 to 88 years ($M$ = 37.91, $SD$ = 16.1). A structural equation model indicated that planfulness and intentional behavior were positively associated with levels of presence of meaning in life, life satisfaction, positive affect, and negatively related to negative affect. The dimensions readiness for change and using resources were negatively associated with life satisfaction and positive affect and positively related to negative affect. These dimensions were not associated with presence of meaning in life. The relationships between planfulness and intentional behavior with subjective well-being were partially mediated by levels of presence of meaning in life.

*Keywords*: personal growth initiative, meaning in life, positive and negative affect, life satisfaction.

The ability of changing personal beliefs and behaviors to adapt to new contexts and experience higher levels of well-being is identified as Personal Growth Initiative (PGI) (Yakunina, Weigold, & Weigold, 2013). The PGI is characterized by an individuals' capacity to intentionally and actively engage in their self-improvement. PGI is constructed of four dimensions: 'readiness for change' (identify opportunities for personal growth), 'planfulness' (plan strategies for self-improvement), 'using resources' (search for support to achieve personal growth), and 'intentional behavior' (development of actions for self-improvement) (Robitschek et al., 2012). The levels of PGI (readiness for change, RC, planfulness, Pla, using resources, UR, and intentional behavior, IB) may impact on the levels of presence of meaning in life and subjective well-being indicators (life satisfaction, positive and negative affect).

Presence of Meaning in Life (MIL) is a personal resource that may contribute to individuals adapt to new context and experience higher levels of subjective well-being (Temane, Khumalo, & Wissing, 2014). The MIL covers the individuals' perceptions about the meaning of their lives and day to day events, also including individuals' beliefs about their purposes and goals in life (Steger, Oishi & Kashdan, 2009). MIL may act as a motivator for the individuals seek for their purposes in life, once they perceive the impact of their actions over their context (Damásio & Koller, *in press*). Higher levels of MIL may help individuals to maintain their personal goals and comprehend how their actions impact in the society (Steger, Shin, Shim, & Fitch-Martin, 2013).

It is hypothesized that higher levels of PGI promote higher sense of meaning in life. The presence of higher levels of PGI boosts one's positive personal development (Yakunina et al., 2013), including the achievement of personal significant goals or aims in life, which is

the basis of the sense of meaning in life. Levels of PGI and MIL are also affiliated with and impact levels of subjective well-being (Robitschek et al., 2012; Steger et al., 2013). High levels of PGI dimensions (RC, Pla, UR and IB) may contribute to individuals face adverse situations, adapt to new contexts and experience higher levels of well-being (Yakunina, Weigold, & Weigold, 2013). Similarly, high levels of MIL may also coincide with an individual's perception of their actions and abilities to cope with stress factors and challenging situations faced in day-to-day life (Steger et al., 2013).

Subjective well-being may be understood as being constituted by levels of life satisfaction and by levels of positive and negative affect that individuals experience (Diener, Suh, Lucas, & Smith, 1999). Life satisfaction (LS) refers to the cognitive dimension of subjective well-being, while positive and negative affect constitute the affective dimension. The presence of high levels of LS (e.g., positive judgments about his/her life), associated to high levels of positive affect (PA) (e.g., grateful, hope) and low levels of negative affect (NA) (e.g., anger, sadness) characterize an optimal experience of subjective well-being (Diener et al., 1999).

It was observed that well-being indicators could predict higher levels of MIL (Damásio & Koller, 2015b; King, Hicks, Krull & Del Graiso, 2006). However, in King's et al. study (2006) MIL did not contribute to explain levels of PA (King et al., 2006). Despite this evidence, it is known that MIL impacts well-being in a broad and pervasive way (Park et al., 2010; Steger et al., 2013). Because of this, the present study evaluates to what extent MIL contributes to explain well-being indicators.

The assessment of PGI and MIL has recently been under investigation in Latin American cultures (Damásio & Koller, *in press*; Freitas et al., 2015). The roles of MIL and PGI dimensions over LS, PA and NA were separately investigated in previous studies (Damásio & Koller, 2015a; Park et al., 2010; Robitschek et al., 2012; Weigold et al., 2013). In this study, we aim to examine the mediating effects of MIL over the relationship between PGI dimensions with subjective well-being indicators (LS, PA and NA) in the Brazilian context.

## Method

### *Participants*

Participants were 1903 Brazilians (63.8% women), aged from 18 to 88 years ($M$ = 38.7, $SD$ = 16.1). Among the participants, 758 (40%) were youngsters, 839 (44%) were adults, and 306 (16%) were elderly. The Brazilian Institute of Geography and Statistics (IBGE) guidelines (IBGE, 1999) were used to define the age groups, that is: Young, 18 to 29 years old; adults, 30 to 59 years old; and elderly, more than 60 years old. Of the total, 46% was single, 30% was married, 8% was divorced, 11% was in stable relationship (dating, engaged, or living with a partner), and 3% was widowed.

Participants were accessed through divulgation of the research using different sources, such as personal and media invitations, research recruitment company, recruitment within social and occupational institutions (especially the adults and the elderly). From the total, 62% answered the questionnaires in a web-based platform, whereas the remaining 38% responded to the questionnaires in the paper-and-pencil form.

*Instruments*

*Sociodemographic Questionnaire:* This questionnaire was used to assess sociodemographic characteristics of the sample (e.g., gender, age, marital status, educational level, financial income, religiosity/spirituality, presence or absence of chronic illness and/or special needs).

*Personal Growth Initiative Scale* – II (PGIS-II, Robitschek et al., 2012, Brazilian version adapted by Freitas et al., 2015): The PGIS-II aims to evaluate personal initiative growth dimensions (RC, Pla, UR and IB). The instrument is a 16-item Likert-type scale (ranging from 0 – Disagree strongly to 5 – Agree strongly) with four items assessing RC, four items assessing Pla, three assessing UR and three assessing IB. In this sample, the goodness-of-fit indexes of the instrument were considered acceptable, suggesting the adequacy of the scale: CFI = .95, TLI = .93, RMSEA = .10 (90% I.C. = .09 – .10).

*Meaning in Life Questionnaire – Presence of Meaning subscale* (MLQ-P, Steger et al., 2006; Brazilian version adapted by Damásio & Koller, 2015a): The MLQ-P is a 5-item subscale of the Meaning in life Questionnaire (MLQ), which evaluates the levels of MIL. Participants answer items through a seven point Likert-type scale (ranging from 1 – totally false to 7 – totally true). In the current study, the MLQ-P presented satisfactory goodness-of-fit indexes: CFI = 0,99; TLI = 0,99; RMSEA = 0,09 (90% C.I.= 0,07 – 0,10).

*Satisfaction with Life Scale* (SWLS, Diener, Emmons, Larsen, & Griffin, 1985, Brazilian version adapted by Gouveia, Milfont, Fonseca, & Coelho, 2009): Five items that evaluate LS

levels compose this instrument. Participants answer items through a Seven point Likert-type scale (ranging from 1 – totally disagree to 7 – totally agree). In this sample, the following goodness-of-fit indexes of the instrument were excellent, suggesting the adequacy of the scale (CFI = .99, TLI = .99; RMSEA = .06 (90% C.I. = .05 – .08)).

*Positive and Negative Affect Schedule* (PANAS, Watson, Clark, & Tellegen, 1988; Brazilian version adapted by Galinha & Pais-Ribeiro, 2005): The PANAS is a two-factor scale, composed by 20 items, in which 10 items evaluate PA, whereas the remaining 10 assess NA. Items are answered through a type-Likert scale that ranges from 1 (nothing or very slightly) to 5 (extremely). The scale presented adequate fit index in the present study (CFI = .94; TLI = .93; RMSEA = .07 (90% C.I. = .06 – .07)).

*Data Analysis*

Initially, descriptive statistics and zero-order correlation was assessed for all variables in the model (RC, Pla, UR, IB, MIL, LS, PA and NA). In order to enhance accuracy of the inferences, the correlation analysis of the previous cited dimensions were calculated via a structural equation model. To further analyze the correlational results, a mediation structural equation model was implemented to evaluate a theoretical model in which the relationships among RC, Pla, UR, IB with LS, PA and NA would be mediated by levels of MIL. Gender and age were inserted as covariables into the model.

The structural equation model was implemented using the Weighted Least Squares Mean and Variance Adjusted (WLSMV) estimation method, which is useful for non-normally

distributed ordinal data. To calculate the mediation effects, the 95% CI of the mediated effect was calculated via bootstrapping (5000 resampling). To assess the global model, the RMSEA, CFI and TLI fit indices were considered. According to the used guidelines, RMSEA value should have been between 0.06 and 0.08 (with the 90% confidence interval not exceeding 0.10). The CFI and TLI values should be greater than 0.90 (preferably greater than 0.95) (Brown, 2006).

## Results

Table 1 shows the descriptive data and zero-order correlations between variables. The levels of PGI dimensions (RC, Pla, UR and IB), MIL, LS and PA were positively associated. On the other hand, NA showed negative relations with all evaluated variables (RC, Pla, UR, IB, MIL, LS and PA).

Table 1. *Descriptive Statistics and Pearson Correlations Between Personal Growth Initiative Dimensions, Presence of Meaning in Life and Subjective Well-Being Indicators*

| | *M* (*SD*) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) G | | – | – | – | – | – | – | – | – | – |
| 2) A | 38.7 (16.1) | - .04 | – | – | – | – | – | – | – | – |
| 3) RC | 3.6 (0.9) | .10* | .13* | – | – | – | – | – | – | – |
| 4) Pla | 3.3 (1.1) | .05 | .12* | .90* | – | – | – | – | – | – |
| 5) UR | 3.7 (0.8) | 0.18* | .15* | .70* | .72* | – | – | – | – | – |
| 6) IB | 4.0 (0.8) | .11* | .13* | .72* | .75* | .82* | – | – | – | – |
| 7) MIL | 5.2 (1.4) | .08* | .31* | .47* | .50* | .45* | .51* | – | – | – |
| 8) SWL | 5.1 (1.2) | .05 | .16* | .32* | .39* | .33* | .41* | .55* | – | – |
| 9) PA | 3.5 (0.6) | .03 | .07* | .33* | .44* | .39* | .54* | .50* | .46* | – |
| 10) NA | 2.1 (0.7) | 0.14* | - .23* | - .22* | - .30* | - .13* | - .24* | - .40* | - .36* | - .18* |

Note: * = $p \leq .001$, *M* = mean, *SD* = standard deviation, *G = Gender, A = Age, RC = Readiness for Change, Pla = Planfulness, IB = Intentional Behavior, UR = Using Resources,* MIL = *Presence of Meaning in Life*, SWL = *Satisfaction with Life*, PA = *Positive Affect*, NA = *Negative Affect*.

The results of the mediation structural equation model are showed in Figure 1. The model evaluated the mediating effects of MIL on the relation of PGI dimensions (RC, Pla, UR and IB) with subjective well-being indicators (LS, PA and NA). The fit indices of the final model were satisfactory [$\chi^2$ = 1.800,526, *df* = 723; $\chi^2/df$ = 2,49; CFI = 0,95; TLI = 0,936; RMSEA (90% IC) = 0,04 (0,04 – 0,05)], suggesting the model's plausibility.

The model explained 27% of LS levels, 33% of PA levels and 12% of NA levels. The dimensions Pla and IB contributed to explain 36% of levels of MIL. On the contrary, the dimensions RC and UR were not associated to levels of MIL. Levels of MIL mediated the relation of Pla and IB with LS, PA and NA.The dimension RC was negatively related to levels of LS, PA and NA. Similarly, UR was negatively associated to PA and NA. However, UR did not contribute to explain levels of LS. Furthermore, gender and age influenced only levels of NA, in which women and younger participants showed higher levels of NA.

The relations of RC and UR with well-being indicators on the mediation structural equation model contradicted the association of these variables on the zero-order correlations analysis. The contradictions of the results on the analysis may result from the suppression effect (Paulhus, Robins, Trzesniewski, & Tracy, 2004). The suppression effect occurs when the indirect effect is so strong that, in a correlation analysis, it overwhelms the direct effect. The suppression effect was observed on the present study, showing that in the zero-order correlational analysis the indirect effect of RC and UR with MIL, LS, PA and NA hinders the direct effect of the RC and UR over the subjective well-being indicators. It is important to highlight that the direct effect is more informative than the indirect effect, because it considers the relation between the variables considering the different influential of this relation (Paulhus et al., 2004).

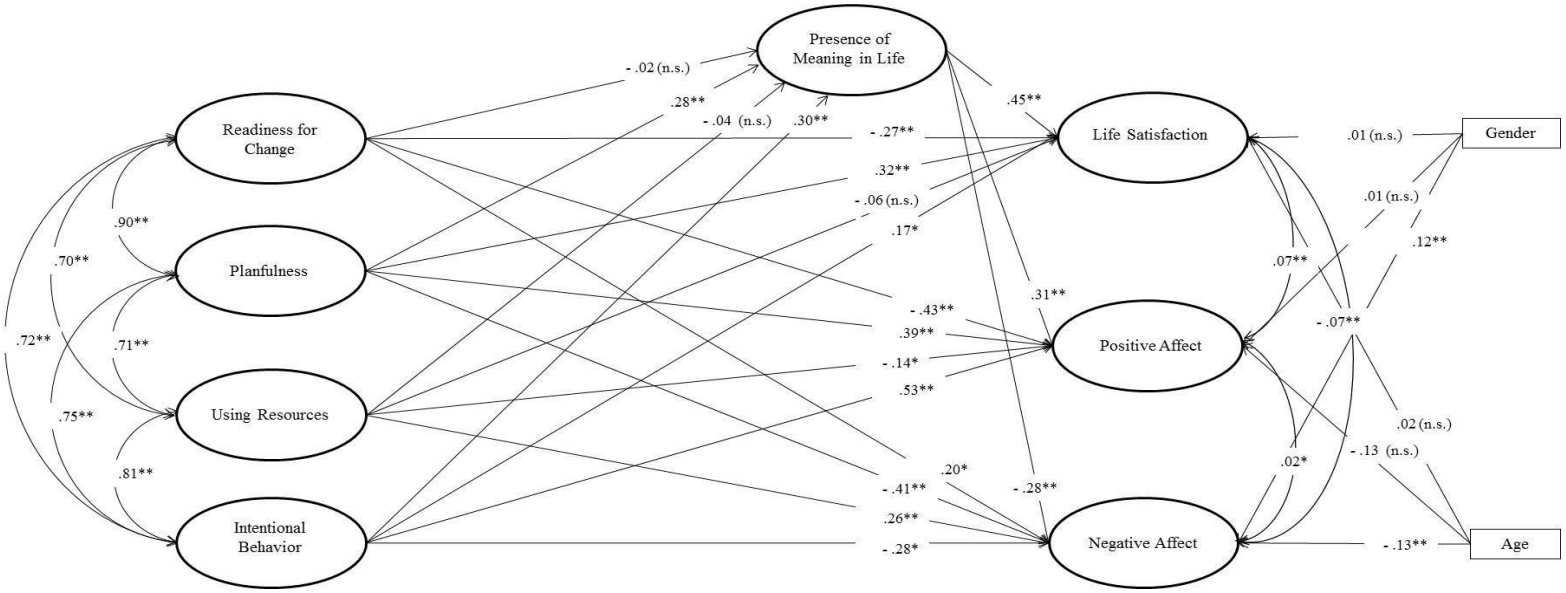


Figure 1. *Relations among Personal Growth Initiative Dimensions, Presence of Meaning in Life and Subjective Well-Being Indicators. Note: N = 1903, * p < .05, ** p < .001). The figure is a representational graph. The items that compose each dimension are not shown to keep the chart simple and parsimonious. The effects between Personal Growth Initiative Dimensions and Subjective Well-Being Indicators are the direct effects (c´) after controlling for the mediated effects.*

The mediation results showed that MIL mediated partially the relations of Pla and IB with LS, PA and NA (see Table 2). An analysis of the percentage of the mediated effect showed that MIL had the greatest influence on the relationship of IB with LS and NA, explaining more than half of the direct relationship between IB and these indicators (63.20% and 58.21%, respectively). However, MIL did not mediate the relations of RC and UR with LS, PA and NA.

Table 2. *Mediation Effects of Presence of Meaning in Life in the Relationship between Personal Growth Initiative and Subjective Well-Being Indicators (n = 1.903).*

| **Total effect** | $\beta$ | **Specific indirect effects** | $\beta$ | 95% C.I | % of mediated specific effect |
|---|---|---|---|---|---|
| RC → SWL | - .287** | RC → SWL via MIL | - .011 | - .097 – .073 | 3.83% (*n.s.*) |
| Pla → SWL | .407** | Pla → SWL via MIL | .130** | .060 – .271 | 31.94% |
| UR → SWL | - .104 | UR → SWL via MIL | - .016 | - .156 – .095 | 15.38% (*n.s.*) |
| IB → SWL | .212* | IB → SWL via MIL | .134** | .079 – .240 | 63.20% |
| RC → SWL | - .364** | RC → SWL via MIL | - .008 | - .053 – .040 | 2.19% (*n.s.*) |
| Pla → PA | .391** | Pla → PA via MIL | .090 | .032 – .148 | 23.01% |
| UR → PA | - .202* | UR → PA via MIL | - .011 | - .084 –.051 | 5.44% (*n.s.*) |
| IB → PA | .493** | IB → PA via MIL | .093** | .044 – .130 | 18.86% |
| RC → NA | .181* | RC → NA via MIL | .007 | - .039 –.051 | 3.86% (*n.s.*) |
| Pla → NA | - .436 | Pla → NA via MIL | - .082** | - .146 – - .030 | 18.80% |
| UR → NA | .410** | UR → NA via MIL | .010 | - .050 – .083 | 2.43% (*n.s.*) |
| IB → NA | - .146* | IB → NA via MIL | - .085** | - .132 – - .037 | 58.21% |

*Note: * p < .05, ** p < .001. RC = Readiness for Change, Pla = Planfulness, IB = Intentional Behavior, UR = Using Resources,* MIL = *Presence of Meaning in Life,* SWL = *Satisfaction with Life,* PA = *Positive Affect,* NA = *Negative Affect.*

## Discussion

The findings of this study contribute to the efforts to understand how positive personal features, such as Pla, IB and MIL, are associated with subjective well-being. Furthermore, in the Brazilian context it was demonstrated that relations of subjective well-being indicators (LS, PA and NA) with RC and UR are opposite to associations evidenced in other samples (Turkish, Yalçın & Malkoç, 2013; Chinese, Yang & Chang, 2014; and North-Americans, Weigold et al., 2013). The differences of relations' patterns among PGI dimensions and subjective well-being highlight the particularities of PGI phenomenon in Brazilian population.

In our sample, we observe that Pla and IB contribute in explaining levels of MIL. Nevertheless, RC and UR were not significantly related to MIL. The dimensions Pla and IB are future-oriented constructs, while RC and UR are focused on actions developed during the self-improvement process (Robitschek et al., 2012). Based on this, Pla and IB may contribute to explain MIL because these PGI dimensions are related to aims and goals established by the individuals in their process of self-change (Robitschek & Kashubeck, 1999), which may comprehend their life purpose.

The results show that MIL had a positive impact over levels of LS and PA, and a negative impact over NA. MIL may assume a guiding role in the lives of individuals since it embodies the understanding of their own lives and may boost the positive development of individuals (Damásio & Koller, *in press*; Steger et al., 2013). It is possible that higher levels of MIL promote higher levels of LS and PA, as well as lower levels of NA.

The contribution of MIL that explains well-being indicators complements the evidence that shows that well-being indicators predict MIL (Damásio et al., 2015b; King et al., 2006). Based on these results it is possible to argue that well-being indicators have a broad and pervasive impact over levels of subjective well-being, as well as the opposite, that PA may predict higher levels of MIL (King et al., 2006). Most likely, individuals with higher levels of well-being face life in a more positive way, in such a manner that they are prone to stablish their goals in life and understand their actions as meaningful (Damásio et al., 2015b). As a result of experiencing higher levels of well-being, the individuals will present higher levels of MIL (Damásio et al., 2015b; King et al., 2006). In turn, individuals with higher levels of MIL will be more prone to seek for their goals in life and see their actions as meaningful, consequently experiencing higher levels of well-being. The relations cited may evidence the feedback loop of MIL and well-being indicators. This is line with the broaden and build perspective of Fredrickson (2013), in which positive affect may promote higher levels of personal resources, as well higher levels of personal resources may broaden individuals' well-being levels.

The dimensions Pla and IB also contributed to the explanation of LS, PA and NA. These PGI dimensions were positively related to higher levels of LS and PA, and lower levels of NA. These results reinforce the assumption that PGI dimensions may constitute a personal resource that promotes positive development of individuals (Robitschek & Kashubeck, 1999; Yakunina et al., 2013) and impact over their levels of well-being (Freitas et al., 2015; Weigold et al., 2013).

The mediational effect of MIL on the relationship of RC and IB with well-being indicators was also evidenced on the percentage of the mediated effect indicators. It is important to highlight that MIL explained more than half of the relationship between IB with LS and NA. This suggests that MIL may be an important route through which Pla and IB are linked to an optimal functioning. Furthermore, these results evidence that those individuals who have higher levels of Pla and IB, and act toward their self-improvement are prone to perceive meaning in their lives, which in turn boosts theirs levels of well-being.

Our results show that in the Brazilian sample, RC was negatively related to LS and PA, and positively associated to NA. It is possible to observe that the results of the mediation structural equation model were contradictory to the findings of the correlational analysis. The differences in the results originate from the suppression effect, in which the indirect effects of the relation of a variable cover their direct effect (Paulhus et al., 2008). The pattern of association of RC with well-being indicators may result in the process of self-improvement related to readiness for change may reduce levels of subjective well-being. The process of personal change associated with RC requires that individuals mobilize internal resources to identify opportunities of personal growth (Ogunyemi & Mabekoje, 2007; Yakunina et al., 2013). For example, when individuals perceive the need to modify a dysfunctional personal belief, they may face some adverse situations during the process of cognitive restructuration and may reduce the levels of well-being that are experienced during the process of personal change.

The dimension UR was also negatively related to PA, and positively associated to NA. The contradiction of the associations of UR with well-being indicators in the correlation analysis in comparison to the mediation structural equation model may also result from the suppression effect (Paulhus et al., 2008). The dimension UR realizes the search for external resources that may contribute to the development of personal changes (Robitschek et al., 2012), such as seeking for help of friends and family. The need to mobilize external resources may constitute as a stressful action to the individual as it requires that they develop new behaviors (Ogunyemi & Mabekoje, 2007) and share their personal difficulties with other people.

Nevertheless, UR was not associated to LS. Even that Brazilian culture, like other Latin cultures, values interdependence (Casper et al., 2011), individuals may be unwilling to ask for help of his/her peers. The process of self-improvement may be evaluated as a private phenomenon, in a way that individuals may resist to ask for help of others. The absence of a relationship between UR and LS may result that the dimension of UR does not occupy a main role on the levels of LS of individuals.

Finally, gender and age were not associated to levels of LS and PA, as observed in Park et al. (2010). However, NA was related to gender and age in such a way that women and younger participants presented higher levels of NA. The association of NA with gender may originate from dominant cultural values where women are oriented to experience negative emotions (e.g., guilt, fear) more intensely than men (Robinson & Clore, 2002). NA may have shown a negative relationship with age, because with increasing age individuals are more prone to experience higher levels of professional

and personal stability. Moreover, with the increasing age individuals may consider different facets when evaluating their day-to-day experiences. This pool of features (e.g., financial and personal stability, maturity) can lead individuals to experience lower levels of NA.

The results of this study should be interpreted cautiously as it has some limitations. The exclusive use of self-report instruments and the use of a non-representative sample may have biased the presented results. Even that was used a non-representative sample, the sample was diverse, with ages ranging from 18 to 88 years and included participants from different Brazilian states. Further studies aiming to replicate and advance our findings are required. The use of longitudinal design may also strength the knowledge on how the PGI impacts several other well-being related variables.

Despite its limitations, the current study presents a significant contribution to the existing literature on subjective well-being and its relations with personal positive characteristics. The findings of the study showed the mediational effects of presence of meaning in life between Pla and IB with subjective well-being indicators, as well as the contribution of RC and UR to explain subjective well-being indicators. Finally, researches and health professionals should take the results of this study into consideration when developing evidence-based intervention to promote positive development of individuals.

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# CAPÍTULO V
# ARTIGO IV

## Impact of presence of meaning in life on relationship of personal characteristics and well-being in Brazilian context[4]

Clarissa Pinto Pizarro de Freitas[1]
Bruno Figueiredo Damásio[2]
Patricia Renovato Tobo[3]
Helder Hiroki Kamei[4]
Emily Jean Haddad[5]
Sílvia Helena Koller[6]

[1] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).
[2] PhD in Psychology, Professor of the Department of Psychometrics of the Institute of Psychology of the Federal University of Rio de Janeiro (UFRJ).
[3] PhD in Biotechnology, Manager of Natura Innovation – Advanced Research in Sciences of Well-being.
[4] MAr in Psychology, Researcher of Natura Innovation – Advanced Research in Sciences of Well-being.
[5] PhD Candidate in Psychology of the Federal University of Rio Grande do Sul (UFRGS).
[6] PhD in Education, Professor in Post-Graduate Program in Psychology of the Federal University of Rio Grande do Sul (UFRGS) and Coordinator of Center of Psychological Studies – CEP-Rua.

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*Abstract*

The present study aimed to investigate the mediation role of presence of meaning in life on the relationship of optimism, pessimism and self-esteem with life satisfaction, stress, positive and negative affect in the Brazilian context. The sample was composed by 1945 Brazilians (64% women), aged from 18 to 88 years ($M$ = 38.7, $SD$ = 16.2). The results of structural equation modeling indicated that the relations of optimism and self-esteem with life satisfaction, stress, positive and negative affect were partially mediated by levels of presence of meaning in life. However presence of meaning in life did not mediated the associations of pessimism with levels of life satisfaction, stress, positive and negative affect. This study contributes to well-being literature advancing on the comprehension of relations of personal characteristics and well-being.

*Keywords*: Optimism; self-esteem; well-being; stress; presence of meaning in life; Brazil.

The Brazil's economy has been characterized as an emerging economy. Despite improvements in the life conditions of the general population, Brazilians still face a high cost of life index, low levels of sense of safety in public places, gender inequality, and low-quality public education. The life conditions faced by the Brazilians have an impact over the well-being experienced by them (OECD, 2013). Moreover, personal features of individuals may influence their evaluation about their context and day to day live situations, in a way that impact over individuals levels of well-being (Jiang et al., 2014). Evidence has shown the impact of the levels of self-esteem, optimism, pessimism and presence of meaning in life on life satisfaction, stress, positive and negative affect (Damásio & Koller, 2014; Jiang et al., 2014).

Optimism is a future oriented construct, which embodies a positive perspective on evaluating the future (Jiang et al., 2014). Further, optimism has been identified as a tendency of the individual believes that his/her life experiences will be positive and that he/she will achieve his/her goals (Scheier, Carver, & Bridges, 2001). Optimism may have an impact over the levels of life satisfaction (Jiang et al., 2014), positive and negative affect (Hutz, Midgett, Pacico, Bastianello, & Zanon, 2014) and stress (Tankamani, Yoosefi, & Kadivar, 2014). Furthermore, this positive characteristic may impact over the levels of presence of meaning in life, since optimism influence the way individuals evaluate their future (Ju, Shin, Kim, Hyun, & Park, 2013).

On the other side, pessimism is characterized as a tendency of the individual evaluate future in a negative perspective, comprehending that he/she will face adverse situations and that he/she will fail in fulfill his/her tasks (Scheier et al., 2001). Because

of the negative way that individuals with high levels of pessimists individuals usually evaluate future, and interpret past life events (Carver & Scheier, 2014), they may experience lower levels of life satisfaction (Jiang et al., 2014) and positive affect, and higher levels of negative affect (Chang, Sanna, & Yang, 2003) and stress (Tankamani et al., 2014). Moreover, as a consequence of the negativity embodied in pessimism, it may show a negative association with presence of meaning in life (Ho, Cheung, & Cheung, 2010).

Other personal characteristic that impact over levels of well-being is self-esteem (Hutz et al., 2014). Self-esteem is constituted by the self-evaluation of the individual, which may be positive (*e.g.* high levels of self-esteem) or negative (*e.g.* low levels of self-esteem) (Rosenberg, 1989). The presence of higher levels of self-esteem is associated to higher levels of life satisfaction and positive affect, and lower levels of negative affect (Hutz et al., 2014; Jiang et al., 2014) and stress (Chao et al., 2014). The positive evaluations that individuals make about themselves may contribute to them believe that they are capable of achieving their goals (Schlegel, Hicks, King, & Arndt, 2011). In such a way that, higher levels of self-esteem may have a positive impact over levels of presence of meaning in life (Kiang & Fuligni, 2010).

The presence of meaning in life is a personal positive characteristic that impact over well-being indicators (Machell, Kashdan, Short, & Nezlek, 2014; Park et al., 2010) and is influenced by others personal positive characteristics (Ho et al., 2003; Ju et al., 2013; Kiang & Fuligni, 2010). The presence of meaning in life refers to individuals' purposes and aims in life, as well as their perceptions about day to day life experiences

(Steger, Frazier, Oishi, & Kaler, 2006). The levels of presence of meaning in life are positively associated to life satisfaction and positive affect (Machell et al., 2014), and negatively related to negative affect (Park et al., 2010) and stress (Kiang & Fuligni, 2010). Furthermore, presence of meaning in life mediate the relations between optimism and life satisfaction, positive and negative affect (Ju et al., 2013).

The high levels of satisfaction with life are identified as individual positive judgments about his/her life. The positive affect (*e.g.*, grateful, hope) originate from experiences judged as positive events. In turn, life events evaluated as negative, originate negative affect (*e.g.*, anger, sadness) (Hutz et al., 2014; Watson, 2005). Finally, the stress levels result from individuals evaluations about their day to day life. In such a manner that, situations evaluated as exhausting, for which individuals perceive that they are not capable to cope, originate high levels of stress (Cohen, Karmack, & Mermelsteinm, 1983; Lazarus & Folkman, 1984).

In a country as Brazil, being optimistic about the future, believing in your own abilities and comprehending that life has a purpose, may contribute to individuals experience higher levels of well-being. The studies that assessed relations between personal features and well-being have utilized variables in an independent way (Hutz et al., 2014; Jiang et al., 2014; Ju et al., 2013). In view of that, the present study aims to investigate the mediation role of presence of meaning in life on the relationships of optimism, pessimism and self-esteem with life satisfaction, positive and negative affect, and stress in a Brazilian sample.

## Method

### *Participants*

The total sample was composed of 1945 Brazilians (64% women), aged from 18 to 88 years ($M$ = 38.7, $SD$ = 16.2). Among the participants, 765 (39%) were youngsters, 867 (45%) were adults, and 313 (16%) were elderly. The Brazilian Institute of Geography and Statistics (IBGE) guidelines (IBGE, 1999) were used to define the age groups, that is: Young, 18 to 29 years old; adults, 30 to 59 years old; and elderly, more than 60 years old. Of the total, 49% was single, 30% was married, 8% was divorced, 10% was in stable relationship (dating, engaged, or living with a partner), and 3% was widowed.

Participants were accessed through divulgation of the research using different sources, such as personal and media invitations, research recruitment company, recruitment within social and occupational institutions (specially adults and elderly). From the total, 62% answered the questionnaires in a web-based platform, whereas the remaining 38% responded to the questionnaires in the paper-and-pencil form.

### *Instruments*

*Sociodemographic Questionnaire:* This questionnaire was used to assess sociodemographic characteristics of the sample (e.g., gender, age, marital status, educational level, financial income, religiosity/spirituality, presence or absence of chronic illness and/or special needs).

*Rosenberg Self-Esteem Scale* (RSS; Rosenberg, 1989): The RSS is a 10-item Likert-type scale (1 – totally disagree; 4 – totally agree) that assesses general self-esteem using a single-factor solution. In the current study, the error covariances of the items pairs 1 and 2, and 10 and 9 were correlated. The fit indexes were as follows: $\chi^2$ (33) = 1353.30; CFI = .96; TLI = .94; RMSEA (90% CI) = .14 (.14 - .15).

*Presence of Meaning in Life Questionnaire* (MLQP, Steger et al., 2006): This instrument evaluates presence of meaning in life through a 5-item instrument. Participants answer items through a seven point Likert-type scale (ranging from 1 – totally false to 7 – totally true). In the current study, the MLQ-P presented satisfactory goodness-of-fit indexes: $\chi^2$ (5) = 78.28; $p < 0.001$); CFI = .99; TLI = .99; RMSEA = .09 (90% I.C. = .07 – .10).

*Life Orientation Test-Revised* (LOT-R, Scheier et al., 2001): The LOT-R evaluates one´s levels of optimism and pessimism. It is composed by ten items (4 fillers), answered in a five-point Likert scale (0 – totally disagree, 4 – totally agree). In this study, the first-order two-factor structure (pessimism and optimism) solution presented excellent goodness-of-fit indexes: $\chi^2$ (8) = 1800.00, $p < .001$, CFI = .97, TLI = .95, RMSEA (90% CI) = .10 (.09 – .12).

*Satisfaction with Life Scale* (SWLS, Diener, Emmons, Larsen, & Griffin, 1985): This instrument is composed by five items that evaluate life satisfaction levels. Participants

answer items through a Seven point Likert-type scale (ranging from 1 – totally disagree to 7 – totally agree). In this sample, the following goodness-of-fit indexes of the instrument were excellent, suggesting the adequacy of the scale ($\chi^2$ (5) = 51.60, $p$ < .001, CFI = .99, TLI = .99; RMSEA = .07 (90% I.C. = .05 – .09)).

*Positive and Negative Affect Schedule* (PANAS, Watson, Clark, & Tellegen, 1988): The PANAS has a first-order two-factor structure, in which 10 items evaluate positive affect and 10 assess negative affect. Items are answered through a type-Likert scale that ranges from 1 (nothing or very slightly) to 5 (extremely). The scale presented adequate fit index in the present study ( $\chi^2$ (169) = 1782.19, $p$ < .001), CFI = .94; TLI = .93; RMSEA = .07 (90% I.C. = .06 – .07)).

*Perceived Stress Scale – 10* (PSS-10, Cohen et al., 1983): The PSS-10 asses the levels of perceived stress through a 10-item instrument. Participants answer items through a five point Likert-type scale (ranging from 0 – never to 4 – always). In the present study, the second-order structure, in which the two factors (distress, composed by 6 items, and coping, constituted by 4 items) into a higher-order factor of stress, presented excellent goodness-of-fit indexes: $\chi^2$ (34) = 301.67, $p$ < .001, CFI = .97, TLI = .96, RMSEA (90% CI) = .06 (.06 – .07).

*Data Analysis*

Descriptive analysis (means, standard deviation) and correlations of the variables optimism, pessimism, self-esteem, presence of meaning in life, life

satisfaction, perceived stress, positive and negative affect were performed. In order to enhance accuracy of the inferences, factor scores (instead of items sum) were used in the correlation analysis. It was expected positive and low-to-moderate correlations among optimism, self-esteem, presence of meaning in life, life satisfaction and positive affect. Also, these variables would present negative and low-to-moderate correlations with pessimism, negative affect and stress. Finally, pessimism, negative affect and stress would present positive and low-to-moderate correlations.

To further analyze the correlational results, a multiple-mediation structural equation modeling was implemented to evaluate a theoretical model in which the relationships among optimism, pessimism, self-esteem with life satisfaction, perceived stress, positive and negative affect would be mediated by levels of presence of meaning in life. Effects of gender and age were controlled in the model.

The structural equation modeling was implemented using the Weighted Least Squares Mean and Variance Adjusted (WLSMV) estimation method, which is useful for non-normally distributed ordinal data. To assess the global model, the RMSEA, CFI and TLI fit indices were considered. According to the used guidelines, RMSEA value should have been between .06 and .08 (with the 90% confidence interval not exceeding .10). The CFI and TLI values should be greater than .90 (preferably greater than 0.95) (Brown, 2006). Further, to calculate the mediation effects, a bootstrapping technique (5,000 re-samplings) was used to calculate the 95% CI of the mediated effect.

# Results

Results of descriptive analysis (means and standard deviation) and correlation analysis among optimism, pessimism, self-esteem, presence of meaning in life, life satisfaction, stress, positive and negative affect are shown in Table 1. As expected, positive personal characteristics (optimism, self-esteem and presence of meaning in life) were positively related to life satisfaction and positive affect. These personal characteristics were negatively associated to negative affect and stress. In turn, levels of pessimism were negatively related to optimism, self-esteem, presence of meaning in life, life satisfaction and positive affect. Furthermore, pessimism was positively associated to stress and negative affect.

Table 1. *Descriptive Statistics and Pearson Correlations between Optimism, Pessimism, Self-Esteem, Presence of Meaning in Life, Life Satisfaction, Positive and Negative Affect, and Stress*

| | *M* (*SD*) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 1) Opt | 3.9 (0.7) | – | – | – | – | – | – | – |
| 2) Pes | 2.1 (0.8) | - .78* | – | – | – | – | – | – |
| 3) SE | 3.2 (0.6) | .44* | - .50* | – | – | – | – | – |
| 4) PML | 5.2 (1.3) | .48* | - .39* | .34* | – | – | – | – |
| 5) SWL | 5,0 (1.2) | .44* | - .36* | .38* | .47* | – | – | – |
| 6) PA | 3.5 (0.6) | .47* | - .41* | .40* | .43* | .41* | – | – |
| 7) NA | 2.0 (0.7) | - .43* | .42* | - .36* | - .33* | - .32* | - .20* | – |
| 8) St | 1.8 (0.6) | - .41* | .40* | - .34* | - .31* | - .40 | - .25* | .57* |

Note: *N = 1945*, * = $p \leq .001$, *M* = mean, *SD* = standard deviation, *Opt = Optimism*, *Pes = Pessimism*, PML = *Presence of Meaning in Life*, SWL = *Satisfaction with Life*, PA = *Positive Affect*, NA = *Negative Affect, and St = Stress*.

The mediation role of presence of meaning in life on the relationships of optimism, pessimism, self-esteem with life satisfaction, stress, positive and negative affect was evaluated through a multiple-mediation structural equation modeling (Figure 1). The fit indices in the final model were satisfactory [$\chi^2$ = 9813.96, *df* = 1553, CFI = .91, TLI = .91, RMSEA (90% IC) = .052 (.051 – .053)], suggesting the model's acceptability.

The positive personal characteristics (optimism and self-esteem) contributed to explain the levels of presence of meaning in life. Moreover, levels of presence of meaning in life mediated the relation of optimism and self-esteem with positive and

negative affect, life satisfaction, and stress. On the contrary, pessimism was not associated to presence of meaning in life, and neither contributed to explain levels of life satisfaction and positive affect. The levels of pessimism were only associated to negative affect and stress.

Sociodemographic characteristics (gender and age) influenced levels of positive and negative affect, life satisfaction, and stress. Women showed higher levels of life satisfaction, as well as negative affect and stress. Older participants showed higher levels life satisfaction and positive affect, in the same way, they presented lower levels of negative affect and stress. It was observed that the model explained 35% of presence of meaning in life, 42% of life satisfaction levels, 40% of positive affect levels, 35% of negative affect levels and 42% of stress.

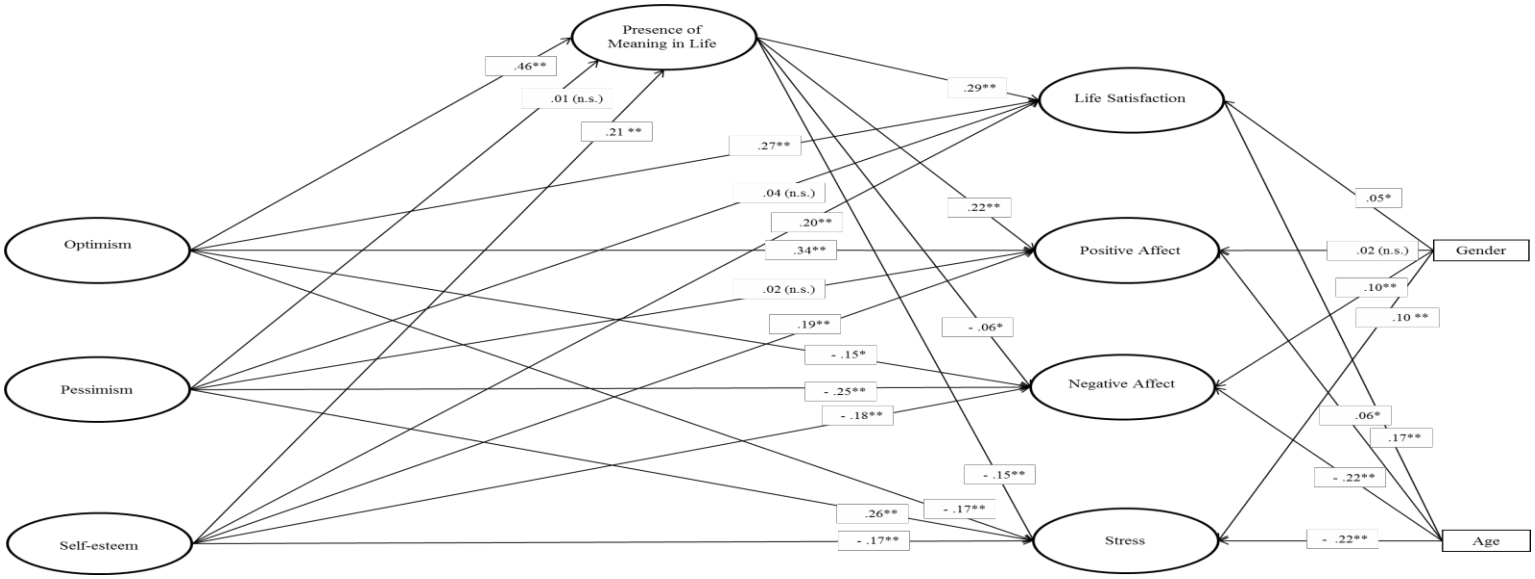


Figure 1. *Relations among Optimism, Pessimism, Self-Esteem, Presence of Meaning in Life, Positive and Negative Affect, Life Satisfaction, and Stress. Note: N = 1945, * p < .05, ** p < .001). The figure is a representational graph. The items that compose each dimension are not shown to keep the chart simple and parsimonious. The effects among Optimism, Pessimism, Self-Esteem and Positive and Negative Affect, Life Satisfaction, and Stress are the direct effects (c´) after controlling for the mediated effects.*

The mediation results showed that presence of meaning in life mediated partially the relations of optimism and self-esteem with life satisfaction, positive and negative affect, and stress (see Table 2). An analysis of the percentage of the mediated effect showed that presence of meaning in life had the greatest influence on the relationship of optimism and life satisfaction, positive affect and stress, explaining more than one third the relationship between optimism and life satisfaction (32.92%) and almost one third of the relationship between optimism with positive affect and stress (23.25% and 28.74% respectively). However, presence of meaning in life did not mediate the relations of pessimism with life satisfaction, positive and negative affect, and stress.

Table 2. *Mediation Effects of Presence of Optimism, Pessimism, Self-Esteem, Presence of Meaning in Life, Life Satisfaction, Positive and Negative Affect, and Stress.*

| **Total effect** | $\beta$ | **Specific indirect effects** | $\beta$ | 95% C.I | % of mediated specific effect |
|---|---|---|---|---|---|
| Opt → SWL | .410** | Opt → SWL via PML | .135** | .114 – .229 | 32.92% |
| Pes → SWL | .039 | Pes → SWL via PML | .001 | - .114 – .213 | 2.56% (*n.s.*) |
| SE → SWL | .264** | SE → SWL via PML | .060** | .038 – .118 | 22.81% |
| Opt → PA | .443** | Opt → PA via PML | .103** | .060 – .143 | 23.25% |
| Pes → PA | .020 | Pes → PA via PML | .001 | - .025 – .027 | 5.00% (*n.s.*) |
| SE → PA | .235** | AE → PA via PML | .046** | .020 – .073 | 19.57% |
| Opt → NA | - .177* | Opt → NA via PML | - .031* | - .076 –.008 | 17.51% |
| Pes → NA | .246** | Pes → NA via PML | .000 | - .010 – .009 | 0.0% (*n.s.*) |

| | | | | | |
|---|---|---|---|---|---|
| SE → NA | - .196* | SE → NA via PML | - .014* | - .036 –.005 | 7.14% |
| Opt → St | - .247** | Opt → St via PML | - .071** | - .116 – - .032 | 28.74% |
| Pes → St | .260** | Pes → St via PML | - .001 | - .020 – .019 | 0.38% (*n.s.*) |
| SE → St | - .201*** | SE → St via PML | - .031** | - .058 – - .009 | 15.42% |

*Note: N* = 1945, ** p < .05, ** p < .001. Opt = Optimism, Pes = Pessimism,* PML = *Presence of Meaning in Life*, SWL = *Satisfaction with Life*, PA = *Positive Affect*, NA = *Negative Affect, and St = Stress*.

## Discussion

The mediator role of presence of meaning in life on the relation of optimism and self-esteem with levels of life satisfaction, positive and negative affect, and stress may result from the impact of optimism and self-esteem over levels of presence of meaning in life (Jiang et al., 2014; Ju et al., 2013; Kiang & Fuligni, 2010). Moreover, the mediator role performed by levels of meaning in life demonstrate the impact of it over life satisfaction, positive and negative affect (Damásio & Koller, 2014; Park et al., 2010), and stress (Kiang & Fuligni, 2010).

The positive evaluation of optimists about future has a positive impact over the perceptions of individuals about his/her past life experiences, as well as about the future (Carver & Scheier, 2014). The positive impact of optimism over individuals evaluations about future may contributed to optimists have clarity about their goals and their purpose in life (Ju et al., 2013). In such a way that optimism had an impact over levels of presence of meaning in life.

The presence of high levels of self-esteem contribute to individuals evaluate themselves in a positive way. This positive evaluation may contribute to individuals comprehend and value their purpose in life, as well as pursue their goals (Kiang & Fuligni, 2010; Schlegel et al., 2011). Because of that, self-esteem may boost the levels of presence of meaning in life.

The levels of presence of meaning in life were positively related to levels of life satisfaction and positive affect, and negatively to levels of negative affect and stress. Because of the impact of presence of meaning in life over individuals' actions, as well as the guiding role of it on the lives of individuals, presence of meaning in life may

boost the positive development of individuals (Steger et al., 2013). Because of that, higher levels of presence of meaning in life promote higher levels of life satisfaction and positive affect (Machell et al., 2014), as well as lower levels of negative affect (Park et al., 2010) and stress (Kiang & Fuligni, 2010).

The levels of optimism and self-esteem were also positively associated to levels of life satisfaction and positive affect, and negatively related to negative affect and stress. Optimists may present higher levels of life satisfaction than pessimists, predominance of positive affect when compared to negative affect, and lower levels of stress, due their positive perspective toward the future and evaluation of past experiences (Ho et al., 2013; Jiang et al., 2014). Likewise, the positive evaluations of individuals about themselves may have a positive impact over their evaluations about their life experience, in a way that they show higher levels of life satisfaction and positive affect, and lower levels of negative affect (Hutz et al., 2014; Jiang et al., 2014). The high levels of self-esteem may also contribute to individuals perceive themselves capable of face stressing situations of their day to day life. Therefore, high levels of self-esteem may buffer the negative effect of stress (Besser & Zeigler-Hill, 2014; Schlegel et al., 2011).

The levels of pessimism did not contributed to explain presence of meaning in life. The pessimists evaluate future with a negative perspective, and, usually, may comprehend that positive outcomes do not constitute as a result of their actions, since these positive outcomes are due to luck (Zhang et al, 2013). So, pessimism may not

contribute to explain presence of meaning in life, because it has a negative impact over individuals' future evaluation (Damásio & Koller, 2014).

Differently from the expected, pessimism was not associated to life satisfaction and positive affect (Jiang et al., 2014; Zhang et al, 2013). Pessimism usually shows relations of higher magnitude with negative outcomes (*e.g.*, negative affect, stress), than positive outcomes (*e.g.*, life satisfaction and positive affect) (Marshall et al., 1992). So, in the present study the absence of relation between these variables, when applied a robust rigorous method of analysis, as SEM, may be due the presence of others variables (optimism, self-esteem and presence of meaning in life) that contribute to explain life satisfaction and positive affect.

The levels of pessimism contributed to explain negative affect and stress. The pessimists evaluate future with a negative perspective, and, usually, may comprehend that positive outcomes do not constitute as a result of their actions, since that they may understand that these positive outcomes are due to luck (Zhang et al, 2013). This negativity may lead pessimists to evaluate events negatively with more frequency than optimistic (Carver & Scheier, 2014), in a way that pessimistic experience more negative affect. Furthermore, pessimists individuals may evaluate situations as more demanding, in a way that they experience higher levels of stress.

The gender differences in well-being indicators may be due the process of socialization of women and men (Pilar Matud, Bethencourt, & Ibáñez, 2014; Robinson & Clore, 2002). During the process of socialization, women are oriented to experience positive and negative affect (*e.g.*, grateful, fear) more intensely than men (Robinson &

Clore, 2002), in a way that gender impact over levels of positive and negative affect. Moreover, higher levels of life satisfaction and stress may also result from this affective sensitivity thaught to women, once they be generalize this sensitivity to others dimensions of theirs life.

The positive relationships of positive affect and life satisfaction, and negative relationship of negative affect and stress with age may result that with increasing age individuals can perform the evaluations of their day to day experiences in a more complex form. So, when individuals use a complex evaluation process of life events, these evaluations may result in experience perceptions that are not mutually exclusive or opposed (Palgi, Shrirab, Ben-Ezrac, Cohen-Frideld, & Bodnere, 2011). Because of that, with the increasing of age individuals may experience higher levels life satisfaction and positive affect, and lower levels of negative affect and stress.

The results of the current study present a significant contribution to the existing literature on well-being and its relations with personal characteristics. The findings of the study showed the mediational effects of presence of meaning in life between optimism and self-esteem with life satisfaction, positive and negative affect, and stress, as well as the contribution of pessimism to explain negative affect and stress.

Although the contributions of the present study, it is no free of limitations. The exclusive use of self-report instruments and the use of a non-representative sample may have biased the presented results. Even that was used a non-representative sample, the sample was diverse, with ages ranging from 18 to 88 years and included participants from different Brazilian states. Further studies aiming to replicate and advance our

findings are required. The use of longitudinal design may also strength the knowledge on how optimism, self-esteem and presence of meaning in life impacts life satisfaction, positive and negative affect, and stress, as well as several other well-being related variables.

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# CAPÍTULO VI
# CONSIDERAÇÕES FINAIS

A presente tese teve como objetivo investigar como os recursos pessoais impactavam sobre os índices de bem-estar dos indivíduos. Para tanto, foi desenvolvida uma revisão teórica e realizados três estudos empirícos. Os resultados dos estudos contribuíram para avançar no conhecimento sobre as relações dos recursos pessoais com os índices de satisfação com vida, afetos positivos e negativos e estresse.

No Capítulo II, referente ao artigo de revisão teórica, foi apresentado o impacto da iniciativa ao crescimento pessoal nos índices de bem-estar de indivíduos de diferentes localidades. Os resultados da revisão teórica demonstraram que não havia estudos realizados na América Latina sobre a iniciativa ao crescimento pessoal que tenham sido publicados em revistas científicas de ampla divulgação. Desta forma, a revisão teórica contribuiu para explicitar e justificar a necessidade de adaptar a escala de Iniciativa ao Crescimento Pessoal –II (*Personal Growth Initiative II*, PGI-II) ao contexto brasileiro.

No Capítulo III foi apresentado o primero artigo empírico desta tese, o qual descreve o processo de adaptação e avaliação das propriedades psicométricas da versão brasileira da Escala de Iniciativa ao Crescimento Pessoal – II (*Personal Growth Initiative Scale II,* PGI-II, Robitschek et al., 2012). Foi observado que a versão brasileira da PGI-II constitui-se como um instrumento confiável para investigar os índices de disponibilidade para mudança, planejamento, comportamento intencional e uso de recursos, apresentando uma estrutura de quatro fatores de primeira ordem. Os resultados indicaram que a PGI-II se constitui como um instrumento confiável para investigar as dimensões de inciativa ao crescimento pessoal no contexto brasileiro.

No Capítulo IV foi investigado se as relações das dimensões da iniciativa ao crescimento pessoal com os níveis de bem-estar subjetivo eram mediadas pela presença de sentido de vida. Neste estudo foi observado que as dimensões planejamento e comportamento intencional estavam positivamente relacionados aos índices de presença de sentido de vida, satisfação com a vida e afetos positivos, e negativamente aos afetos negativos. Os níveis de presença de sentido de vida mediaram às relações das dimensões planejamento e comportamento intencional com os níveis de bem-estar subjetivo. Já as dimensões disponibilidade para mudança e uso de recursos não se relacionaram aos índices de presença de sentido de vida. Diferentemente do esperado, as dimensões disponibilidade para mudança e uso de recursos apresentaram uma associação negativa com os índices de satisfação com a vida e afetos positivos, e uma relação positiva com os afetos negativos. Este artigo expôs as particularidades das relações da iniciativa ao crescimento pessoal com o bem-estar subjetivo no contexto brasileiro. Além disso, trouxe luz ao papel crucial da presença de sentido de vida na relação das dimensões planejamento e comportamento intencional com a satisfação com a vida, afetos positivos e afetos negativos.

No Capítulo V foi avaliado se as relações entre otimismo, pessimismo e autoestima com os índices de estresse, satisfação com a vida, afetos positivos e negativos eram mediados pelos níveis de presença de sentido de vida. Os resultados demonstraram que as relações entre o otimismo e autoestima com os índices de estresse, afetos positivos e negativos foram parcialmente mediados pelos níveis de presença de sentido de vida. Entretanto, as relações dos índices de pessimismo com estresse,

satisfação com a vida, afetos positivos e negativos não foram mediados pelos níveis de satisfação com a vida.

As contribuições dos estudos não foram realizadas sem limitações. As principais limitações dos artigos apresentados foi uso exclusivo de instrumentos de autorelato e a adoção de um delineamento transversal. Pesquisas futuras devem privilegiar o uso de delineamentos experimentais e longitudinais. Por exemplo, o delineamento experimental poderia ser utilizado para investigar se o impacto de um reforçador comportamental (*e.g.*, elogio) sobre os índices de bem-estar dos indivíduos é moderado pelos índices dos seus recursos pessoais. A adoção de um delineamento longitudinal possibilitaria investigar a estabilidade dos recursos pessoais, assim como a relações destes com os índices de bem-estar dos indivíduos ao longo do tempo.

Por fim, observa-se que os objetivos desta tese de Doutorado foram alcançados. Os estudos apresentados demonstraram que os recursos pessoais (*e.g.*, iniciativa ao crescimento pessoal, presença de sentido de vida, autoestima e otimismo) estão diretamente relacionados aos índices de estresse, satisfação com a vida, afetos positivos e negativos.

# ANEXOS

**ANEXO A**

QUESTIONÁRIO SOCIODEMOGRÁFICO

**(DELL`AGLIO ET AL., 2011)**

1. Sexo: a. ( ) Masculino b. ( ) Feminino
2. Idade:_____anos
3. Cor:

a. ( ) Branca
b. ( ) Negra
c. ( ) Parda
d. ( ) Amarela
e. ( ) Indígena

4. Estado civil:

a. ( ) Solteiro
b. ( ) Casado
c. ( ) Mora junto
d. ( ) Separado/divorciado
e. ( ) Viúvo
f. ( ) Outros: _____

5. Marque na tabela quais os itens que você possui na sua casa e quantos:

| | | Sim | Não | Quantos? | | | | |
|---|---|---|---|---|---|---|---|---|
| a | Televisão em cores | | | 0 | 1 | 2 | 3 | 4 ou + |
| b | Rádio | | | | | | | |
| c | Banheiro | | | | | | | |
| d | Automóvel | | | | | | | |
| e | Empregada mensalista | | | | | | | |
| f | Máquina de lavar roupa | | | | | | | |
| g | Videocassete, DVD ou Blu-ray | | | | | | | |
| h | Geladeira | | | | | | | |
| i | Freezer | | | | | | | |

2. Qual é o grau de instrução do chefe da família: Marque com X:

| | | Marque um X |
|---|---|---|
| a | Analfabeto (Ensino Fundamental 1 incompleto) | |
| b | Ensino fundamental 1 completo / Fundamental 2 incompleto | |
| c | Fundamental 2 completo / Ensino médio incompleto | |
| d | Médio completo / Superior Incompleto | |
| e | Superior Completo | |

7. Qual o seu grau de escolaridade?

( ) Ensino Fundamental Incompleto ( ) Ensino Fundamental Completo

( ) Ensino Médio Incompleto ( ) Ensino Médio Completo

( ) Ensino Superior Incompleto ( ) Ensino Superior Completo

( ) Pós-Graduação Incompleta ( ) Pós-Graduação Completa

8. Você Trabalha? ( ) Sim ( ) Não ( ) Sou aposentado(a)

8.1 Se sim, qual a sua profissão? _____

8.2 Se trabalha, é satisfeito com o seu trabalho? ( ) Sim ( ) Não

8.3 Por quê? _____

9. Você depende financeiramente de alguém? ( ) Sim ( ) Não

10. Qual é a sua renda mensal (Se você não tem renda própria, ou depende financeiramente de alguém, considere a renda da sua família): Esta questão não ser para análise, entretanto, vamos manter. Atualizar os valores (salário mínimo)

( ) Até um salário mínimo (aproximadamente R$ 620,00);

( ) De um a três salários mínimos (Entre R$ 620,00 e R$ 1.860,00);

( ) De três a cinco salários mínimos (Entre 1.860,00 e 3.100,00;

( ) De cinco a oito salários mínimos (Entre 3.100,00 e R$ 4.960,00);

( ) Mais de oito salários mínimos (Mais de R$ 4.960,00)

11. Você tem alguma doença crônica (diabetes, AIDS, câncer, insuficiência renal, outra)?
a. ( ) Não
b. ( ) Sim Qual?_____

13. Você tem algum problema mental/psicológico ou dos nervos?
a. ( ) Não
b. ( ) Sim c. Qual?_____
d. Você já procurou algum tipo de auxílio/tratamento? ( )sim ( )não
14. Você tem alguma necessidade especial?
a. ( ) Não
b. ( ) Sim ( ) Visual ( ) Auditiva ( ) Física ( ) Outra Qual?_____

15. Qual o serviço de assistência à saúde você recorre? (pode marcar mais de um)
a. ( ) SUS – Sistema Único de Saúde
b. ( ) Plano de Saúde
c. ( ) Atendimento Particular
d. ( ) Outros

16. Com relação à sua religião/doutrina/crença, você se considera: (Marque mais de uma se for o caso)
a. ( ) Não acredito em Deus (ateu)
b. ( ) Sem religião (mas acredito em Deus)
c. ( ) Católico
d. ( ) Protestante
e. ( ) Evangélica
f. ( ) Espírita
i. ( ) Outro _____

17. Qual o grau de importância da sua crença religiosa ou espiritual em sua vida?
1. ( ) Nenhum
2. ( ) Muito pouco
3. ( ) Pouco
4. ( ) Mais ou menos
5. ( ) Bastante
6. ( ) Muito.

**ANEXO B**

ESCALA DE INICIATIVA AO CRESCIMENTO PESSOAL

**(*PERSONAL GROWTH INITIATIVE SCALE–II,* ROBITSCHECK ET AL., 2012**

**ADAPTADO POR FREITAS ET AL., 2015)**

Por favor, marque o quanto você concorda ou discorda de cada afirmação. Utilize a escala apresentada para indicar sua concordância com as questões:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Discordo totalmente | Discordo | Nem concordo, nem discordo | Concordo | Concordo totalmente |

| | | | | | |
|---|---|---|---|---|---|
| 1. Eu estabeleço objetivos realistas sobre o que eu quero mudar em mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 2. Eu sei quando estou pronto para fazer mudanças específicas em mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 3. Eu sei fazer planos realistas para mudar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 4. Eu aproveito todas as oportunidades que aparecem para crescer. | 1 | 2 | 3 | 4 | 5 |
| 5. Quando eu tento mudar a mim mesmo(a), faço um plano realista para meu crescimento pessoal. | 1 | 2 | 3 | 4 | 5 |
| 6. Eu peço ajuda quando tento mudar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 7. Eu trabalho ativamente para melhorar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 8. Eu reconheço o que preciso mudar em mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 9. Eu estou constantemente tentando crescer como pessoa. | 1 | 2 | 3 | 4 | 5 |
| 10. Eu sei como estabelecer objetivos realistas para mudar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 11. Eu sei quando preciso fazer alguma mudança específica em mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 12. Eu uso recursos quando tento crescer. | 1 | 2 | 3 | 4 | 5 |
| 13. Eu sei quais são os passos necessaries para mudar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 14. Eu busco ajuda ativamente para mudar a mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |
| 15. Eu busco por oportunidades para crescer como pessoa. | 1 | 2 | 3 | 4 | 5 |
| 16. Eu sei quando é hora de mudar coisas específicas em mim mesmo(a). | 1 | 2 | 3 | 4 | 5 |

## ANEXO C

### Escala de Autoestima de Rosenberg

(Rosenberg, 1989, adaptada por Hutz & Zanon, 2011)

Leia cada frase com atenção e, de acordo com a escala abaixo, coloque um número no item opção que melhor representa sua opinião.

1 – Concordo Totalmente

2- Concordo

3- Discordo

4- Discordo Totalmente

1. ___Eu sinto que sou uma pessoa de valor, no mínimo, tanto quanto as outras pessoas
2. ___Eu acho que tenho várias boas qualidades
3. ___Levando tudo em conta, eu penso que sou um fracasso
4. ___Eu acho que sou capaz de fazer as coisas tão bem quanto a maioria das pessoas
5. ___Eu acho que eu não tenho muito do que me orgulhar
6. ___Eu tenho uma atitude positiva com relação a mim mesmo
7. ___No conjunto, eu estou satisfeito comigo
8. ___Eu gostaria de poder ter mais respeito por mim mesmo
9. ___Às vezes eu me sinto inútil
10. ___Às vezes eu acho que não presto para nada

**ANEXO D**

Teste de Orientação da Vida Revisado

(*Life Orientation Test-Revised*, Lot-R – Scheier et al., 1994, adaptada por Bastianello et al., 2012)

Os itens abaixo dizem respeito a diferentes aspectos de sua vida. Utilizando a escala abaixo, indique o número que melhor representa a sua opinião. Seja o(a) mais sincero(a) possível e procure não deixar sua resposta a uma questão influenciar suas respostas às outras questões. Não há respostas certas nem erradas.

1. Discordo totalmente
2. Discordo
3. Neutro
4. Concordo
5. Concordo totalmente

1. ___Diante de dificuldades, acho que tudo vai dar certo.
2. ___Para mim é fácil relaxar.
3. ___Se alguma coisa pode dar errado comigo, com certeza vai dar errado.
4. ___Eu sou sempre otimista com relação ao meu futuro.
5. ___Eu gosto dos meus amigos.
6. ___Eu considero importante me manter ocupado
7. ___Em geral, eu não espero que as coisas vão dar certo para mim.
8. ___Eu não me incomodo com facilidade.
9. ___Raramente eu espero que coisas boas aconteçam comigo.
10. ___Em geral, eu espero que aconteçam mais coisas boas do que ruins para mim.

**ANEXO E**

Questionário de Presença de Sentido de Vida

(Steger et al., 2006, adaptado por Damásio & Koller, 2014)

Tire um momento para pensar sobre os elementos que fazem sua vida parecer importante para você. Responda às afirmações abaixo da forma mais sincera e precisa que puder. Lembre-se que são questões muito pessoais e que não existem respostas certas ou erradas. Responda de acordo com a escala abaixo:

| Totalmente falsa | Geralmente falsa | Um pouco falsa | Nem falsa, nem verdadeira | Um pouco verdadeira | Geralmente verdadeira | Totalmente verdadeira |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

1._____Estou procurando por algo que faça a minha vida ser significativa.

2._____Minha vida tem um propósito claro.

3._____Eu tenho uma clara noção do que faz a minha vida ser significativa.

4._____Eu encontrei um propósito de vida satisfatório.

5._____Minha vida não tem um propósito claro.

**ANEXO F**

Escala de Afetos Positivos e Negativos

(Watson et al., 1988, adaptado por Galinha & Pais-Ribeiro, 2005)

A seguir, você encontrará palavras que descrevem diferentes sentimentos e emoções. Utilizando a escala abaixo, marque um (X) no espaço relacionado ao número que melhor representa como você geralmente se sente. Você deve escolher apenas uma alternativa para cada resposta.

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | Nada ou muito Ligeiramente | Um pouco | Moderadamente | Bastante | Extremamente |
| Interessada | | | | | |
| Aflita | | | | | |
| Empolgada | | | | | |
| Chateada | | | | | |
| Agradavelmente surpresa | | | | | |
| Culpada | | | | | |
| Assustada | | | | | |
| Atenciosa | | | | | |
| Hostil | | | | | |
| Entusiasmada | | | | | |
| Orgulhosa | | | | | |
| Irritada | | | | | |
| Encantada | | | | | |
| Envergonhada | | | | | |
| Inspirada | | | | | |
| Nervosa | | | | | |
| Determinada | | | | | |
| Trêmula | | | | | |
| Ativa | | | | | |
| Amedrontada | | | | | |

**ANEXO G**

Escala de Satisfação com a Vida

(Diener et al. 1985, adaptada por Gouveia et al., 2009)

Abaixo você encontrará cinco afirmações com as quais pode ou não concordar. Usando a escala de resposta a seguir, que vai de 1 a 7, indique o quanto concorda ou discorda com cada uma. Escreva um número no espaço ao lado da afirmação, segundo sua opinião. Por favor, seja o mais sincero possível nas suas respostas.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Discordo totalmente | Discordo | Discordo ligeiramente | Nem concordo, nem discordo | Concordo ligeiramente | Concordo | Concordo totalmente |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. Na maioria dos aspectos, minha vida é próxima ao meu ideal. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. As condições da minha vida são excelentes. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Estou satisfeito (a) com minha vida. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Dentro do possível, tenho conseguido as coisas importantes que quero da vida. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Se pudesse viver uma segunda vez, não mudaria quase nada na minha vida. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

ANEXO H
Escala de Estresse Percebido
(Cohen et al., 1983, adaptado por Reis et al., 2010)

As questões nesta escala perguntam a respeito dos seus sentimentos e pensamentos durantes os últimos 30 dias (último mês). Em cada questão indique a frequência com que você se sentiu ou pensou a respeito da situação. (Considere sempre os últimos 30 dias)

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Nunca | Quase nunca | Às vezes | Pouco frequente | Muito frequente |

| | | | | | |
|---|---|---|---|---|---|
| 1. Com que frequência você ficou aborrecido por causa de algo que aconteceu inesperadamente? | 0 | 1 | 2 | 3 | 4 |
| 2. Com que frequência você sentiu que foi incapaz de controlar coisas importantes na sua vida? | 0 | 1 | 2 | 3 | 4 |
| 3. Com que frequência você esteve nervoso ou estressado? | 0 | 1 | 2 | 3 | 4 |
| 4. Com que frequência você esteve confiante em sua capacidade de lidar com seus problemas pessoais? | 0 | 1 | 2 | 3 | 4 |
| 5. Com que frequência você sentiu que as coisas aconteceram da maneira que você esperava? | 0 | 1 | 2 | 3 | 4 |
| 6.Com que frequência você achou que não conseguiria lidar com todas as coisas que tinha por fazer? | 0 | 1 | 2 | 3 | 4 |
| 7. Com que frequência você foi capaz de controlar irritações na sua vida? | 0 | 1 | 2 | 3 | 4 |
| 8.Com que frequência você sentiu que todos os aspectos de sua vida estavam sob controle? | 0 | 1 | 2 | 3 | 4 |
| 9. Com que frequência você esteve bravo por causa de coisas que estiveram fora de seu controle? | 0 | 1 | 2 | 3 | 4 |
| 10. Com que frequência você sentiu que os problemas acumularam tanto que você não conseguiria resolvê-los? | 0 | 1 | 2 | 3 | 4 |

# ANEXO I

Aprovação do Projeto Vida no Comitê de Ética do Instituto de Psicologia da

# UFRGS

INSTITUTO DE PSICOLOGIA - UFRGS

## PARECER CONSUBSTANCIADO DO CEP

**DADOS DO PROJETO DE PESQUISA**

**Título da Pesquisa:** ADAPTAÇÃO E EVIDÊNCIAS DE VALIDADE DA VERSÃO BRASILEIRA DA PERSONAL GROWTH INITIATIVE SCALE - II (PGI-II)
**Pesquisador:** Silvia Helena Koller
**Área Temática:**
**Versão:** 1
**CAAE:** 14200513.4.0000.5334
**Instituição Proponente:** Instituto de Psicologia - UFRGS
**Patrocinador Principal:** NATURA INOVACAO E TECNOLOGIA DE PRODUTOS LTDA

**DADOS DO PARECER**

**Número do Parecer:** 243.206
**Data da Relatoria:** 01/04/2013

**Apresentação do Projeto:**
Adaptação e evidências de validade da versão brasileira da Personal Growth Initiative Scale ¿ II (PGI-II).Serão recrutados no mínimo 1200 participantes, de ambos os sexos, com idade acima de 18 anos para atender as fases I (mínimo de 960) e II (mínimo de 240) do projeto. Para fase I os participantes serão divididos em 02 grupos distintos sendo:
Fase I
Grupo 01 ¿ Presencial com papel e caneta (n=480);
¿ Jovens (n=160);
¿ Adultos (n=160);
¿ Idosos (n=160);
Grupo 02 ¿ Presencial online (n=480)
¿ Jovens (n=160);
¿ Adultos (n=160);
¿ Idosos (n=160);

Fase II
Grupo 03 ¿ Não presencial online ¿ mínimo de 240 participantes distribuídos da seguinte forma:
¿ Jovens (n=80);
¿ Adultos (n=80);

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**Bairro:** Santa Cecília **CEP:** 90.035-003
**UF:** RS **Município:** PORTO ALEGRE
**Telefone:** (513)308-5698 **Fax:** (513)308-5698 **E-mail:** cep-psico@ufrgs.br

¿ Idosos (n=80);
Total = mínimo de 1200 participantes

**Objetivo da Pesquisa:**

¿ Realizar um estudo de adaptação e apresentação de evidências de validade da versão brasileira da PERSONAL GROWTH INITIATIVE SCALE ¿ II (PGI-II) através da aplicação do questionário no formato convencional (papel e caneta) e virtual (on-line).

¿ Avaliar como diferentes aspectos do questionário referente ao crescimento pessoal se relacionam com os índices de bem-estar psicológico, bem-estar subjetivo, qualidade de vida, valores humanos básicos, atividade de compra e com variáveis biossociodemográficas em diferentes grupos etários.

**Avaliação dos Riscos e Benefícios:**

Apresenta riscos mínimos.

**Comentários e Considerações sobre a Pesquisa:**

O projeto está bem estruturado, fundamentado, os objetivos estão claros e bem delineados. Apresenta todos os instrumentos para a coleta de dados.

**Considerações sobre os Termos de apresentação obrigatória:**

Apresenta todos os termos de apresentação obrigatória. O estudo é patrocinado pela Natura.

**Recomendações:**

O projeto está eticamente adequado.

**Conclusões ou Pendências e Lista de Inadequações:**

O projeto está eticamente e metodologicamente adequado.

**Situação do Parecer:**

Aprovado

**Necessita Apreciação da CONEP:**

Não

**Considerações Finais a critério do CEP:**

O projeto atende aos preceitos da ética em pesquisa e a pesquisadora atendeu todas as recomendações do CEP.

INSTITUTO DE PSICOLOGIA - UFRGS

PORTO ALEGRE, 11 de Abril de 2013

**Assinador por:**
**JUSSARA MARIA ROSA MENDES**
**(Coordenador)**

Profª Jussara Maria Rosa Mendes
Coordenadora do Comitê de Ética em Pesquisa
Instituto de Psicologia - UFRGS

Comitê de Ética em Pesquisa
Registro 25000.089325/2006-58
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**ANEXO J**

Termo de Consentimento Livre e Esclarecido (TCLE)

(Grupos Presenciais – coleta através do uso de papel)

**Título do Estudo**

Adaptação e evidências de validade da versão brasileira da Personal Growth Initiative Scale II (PGI-II).

**Pesquisador responsável**

Dra. Silvia Helena Koller

Professora/Pesquisadora do Instituto de Psicologia da UFRGS

**Coordenador estudo**

Bruno Figueiredo Damásio

Doutorando em Psicologia pela UFRGS

**1. O que é um Termo de Consentimento Livre e Esclarecido?**

Você está sendo convidado a participar voluntariamente de uma pesquisa científica. O Termo de Consentimento Livre e Esclarecido tem por meta esclarecer esta pesquisa, explicando resumidamente o seus objetivos, procedimentos, riscos e benefícios.

**2. Qual é o objetivo deste estudo?**

O objetivo deste estudo é avaliar a iniciativa ao crescimento pessoal em brasileiros e as suas relações com diferentes dimensões do bem-estar e com características sociodemográficas. Os aspectos positivos do funcionamento humano tem sido alvo de crescentes pesquisas científicas. Avaliar como e quais são os aspectos que favorecem o desenvolvimento saudável dos participantes é um componente imprescindível para que seja possível pensar em intervenções que visem o desenvolvimento das potencialidades das pessoas. Os resultados de pesquisas como esta podem favorecer a prevenção e proteção aos níveis de bem-estar psicológico dos participantes, diminuindo os riscos de adoecimento psíquico.

**3. Quais procedimentos serão realizados?**

Ao aceitar participar desta pesquisa, você irá preencher uma série de instrumentos que avaliam diversos aspectos positivos do funcionamento humano (bem estar, felicidade, busca por crescimento pessoal). A avaliação tem duração de aproximadamente 40 minutos.

**4. Quanto tempo de duração tem o estudo?**

A duração total deste projeto é prevista em um ano e meio, após a aprovação do estudo no comitê de ética em pesquisa.

**5. Quais são os possíveis benefícios?**

Com esta pesquisa, objetivamos conhecer as questões relacionadas ao crescimento pessoal. Desta forma, você estará contribuindo com a comunidade científica relacionada ao tema.

1. Quais são os possíveis riscos e desconfortos?

Este estudo oferece risco mínimo para os participantes, já que os mesmos podem sentir um pouco de cansaço físico e ou mental ou um pouco de ansiedade por ter que responder perguntas sobre seus sentimentos e comportamentos no dia-a-dia.

**7. Receberei algum pagamento?**

Não. Sua participação neste estudo é de caráter exclusivamente voluntário, ou seja, não há remuneração pela participação. Entretanto, você será ressarcido das despesas referente ao transporte necessário ao seu comparecimento neste centro de pesquisa.

8. Direitos

Os dados obtidos somente serão usados para o fim previsto neste projeto de pesquisa e qualquer outro uso terá que se solicitar o seu consentimento. As informações produzidas neste estudo serão mantidas em lugar seguro, codificadas e a identificação só poderá ser realizada pela equipe do projeto e patrocinador do estudo. Caso o material venha a ser utilizado para publicação científica ou atividades didáticas, não serão utilizados nomes que possam vir a identificá-lo.

**9. Quem devo procurar em caso de dúvidas?**

Em qualquer momento do estudo você poderá obter mais informações sobre o estudo com a Prof. Dra. Silvia Koller (Investigadora Principal) e com Bruno Figueiredo Damásio (Coordenador), pelo telefone (051) 3308-5150, que estarão aptos a solucionar suas dúvidas. Se você tiver alguma consideração ou dúvida sobre a ética da pesquisa, pode entrar em contato com o Comitê de Ética em Pesquisa do Instituto de Psicologia da UFRGS (CEP-Psico). Você pode entrar em contato com o Comitê de Ética em pesquisa pelo telefone (051) 3308-5698, localizado no Instituto de Psicologia da UFRGS na Rua Ramiro Barcelos, n° 2600, o horário de atendimento é das 8h às 17h.

**10. Meus dados serão mantidos em confidencialidade?**

Sim, a pesquisa é anônima, mas você precisará fornecer um *email* que será usado somente para envio da senha de acesso. Todas as informações obtidas e opiniões emitidas por você serão tratadas de maneira confidencial pelos monitores e auditores da empresa patrocinadora do estudo, bem como as autoridades regulatórias, poderão ter acesso a estas informações caso solicitado, sem que, com isto, você seja identificado. Os dados obtidos somente serão usados conforme os objetivos desta pesquisa e qualquer outro uso terá que se solicitar o seu consentimento prévio. Os dados publicados cientificamente ou atividades didáticas, não serão utilizados nomes que possam vir a identificá-lo.

**11. Posso desistir da participação?**

Sim. Você tem toda a liberdade para se recusar a participar ou mesmo para se retirar do estudo a qualquer momento em que desejar, sem qualquer penalidade, prejuízo ou necessidade de explicação.

**Consentimento:**

Confirmo que li o conteúdo deste Termo de Consentimento Livre e Esclarecido e aceitei participar voluntariamente deste estudo. Ficaram claros para mim quais são os propósitos do estudo, os procedimentos a serem realizados, seus benefícios e desconfortos, as garantias de confidencialidade e de esclarecimentos permanentes. Ficou claro também que a minha participação é isenta de despesas. Concordo voluntariamente na minha participação, sabendo que poderei retirar o meu consentimento a qualquer momento, antes ou durante o mesmo, sem penalidades ou prejuízos.

**Nome do participante:**_____

Assinatura:_____

Data

Nome do pesquisador responsável:_____ Assinatura:

_____

Data:

## ANEXO K

Termo de Consentimento Livre e Esclarecido (TCLE)

(Para Coleta *On-line*)

Título do Estudo
Adaptação e evidências de validade da versão brasileira da *Personal Growth Initiative Scale II* (PGI-II).

1. O que é um Termo de Consentimento Livre e Esclarecido?
Você está sendo convidado a participar voluntariamente de uma pesquisa científica. O Termo de Consentimento Livre e Esclarecido tem por meta esclarecer esta pesquisa, explicando resumidamente o seus objetivos, procedimentos, riscos e benefícios.
2. Qual é o objetivo deste estudo?
O objetivo deste estudo é avaliar a iniciativa ao crescimento pessoal em brasileiros e as suas relações com diferentes dimensões do bem-estar e com características sociodemográficas. Os aspectos positivos do funcionamento humano tem sido alvo de crescentes pesquisas científicas. Avaliar como e quais são os aspectos que favorecem o desenvolvimento saudável dos participantes é um componente imprescindível para que seja possível pensar em intervenções que visem o desenvolvimento das potencialidades das pessoas. Os resultados de pesquisas como esta podem favorecer a prevenção e proteção aos níveis de bem-estar psicológico dos participantes, diminuindo os riscos de adoecimento psíquico.
3. Quais procedimentos serão realizados?
Ao aceitar participar desta pesquisa, você irá preencher uma série de instrumentos que avaliam diversos aspectos positivos do funcionamento humano (bem estar, felicidade, busca por crescimento pessoal). A avaliação tem duração de aproximadamente 40 minutos.
4. Quanto tempo de duração tem o estudo?
A duração total deste projeto é prevista em um ano e meio, após a aprovação do estudo no comitê de ética em pesquisa.
5. Quais são os possíveis benefícios?
No final do preenchimento de todos os questionários, será fornecido um relatório de suas características referente ao crescimento pessoal. Com esta pesquisa, objetivamos conhecer as questões relacionadas ao crescimento pessoal.
6. Quais são os possíveis riscos e desconfortos?
Este estudo oferece risco mínimo para os participantes, já que os mesmos podem sentir um pouco de cansaço físico e ou mental ou um pouco de ansiedade por ter que responder perguntas sobre seus sentimentos e comportamentos no dia-a-dia.
7. Receberei algum pagamento?
Não. Sua participação neste estudo é de caráter exclusivamente voluntário, ou seja, não há remuneração pela participação. Entretanto, você será ressarcido das despesas referente ao transporte.
8. Quem devo procurar em caso de dúvidas?

Em qualquer momento do estudo você poderá obter mais informações sobre o estudo com a Prof. Dra. Silvia Koller (Investigadora Principal) e com Bruno Figueiredo Damásio (Coordenador), pelo telefone (051) 3308-5150, que estarão aptos a solucionar suas dúvidas. Se você tiver alguma consideração ou dúvida sobre a ética da pesquisa, pode entrar em contato com o Comitê de Ética em Pesquisa (CEP) – localizado no Instituto de Psicologia da UFRGS, com horário de atendimento das 8h às 17h.

9. Meus dados serão mantidos em confidencialidade?

Sim, a pesquisa é anônima, mas você precisará fornecer um *email* que será usado somente para envio da senha de acesso. Todas as informações obtidas e opiniões emitidas por você serão tratadas de maneira confidencial pelos monitores e auditores da empresa patrocinadora do estudo, bem como as autoridades regulatórias, poderão ter acesso a estas informações caso solicitado, sem que, com isto, você seja identificado. Os dados obtidos somente serão usados conforme os objetivos desta pesquisa e qualquer outro uso terá que se solicitar o seu consentimento prévio. Os dados publicados cientificamente ou atividades didáticas, não serão utilizados nomes que possam vir a identificá-lo.

10. Posso desistir da participação?

Sim. Você tem toda a liberdade para se recusar a participar ou mesmo para se retirar do estudo a qualquer momento em que desejar, sem qualquer penalidade, prejuízo ou necessidade de explicação.

11. Consentimento:

Confirmo que li o conteúdo deste Termo de Consentimento Livre e Esclarecido e aceitei participar voluntariamente deste estudo. Ficaram claros para mim quais são os propósitos do estudo, os procedimentos a serem realizados, seus desconfortos e riscos, as garantias de confidencialidade e de esclarecimentos permanentes. Ficou claro também que a minha participação é isenta de despesas. Concordo voluntariamente na minha participação, sabendo que poderei retirar o meu consentimento a qualquer momento, antes ou durante o mesmo, sem penalidades ou prejuízos.

( ) ACEITO