

Purpose in life among very old men

Pia Hedberg¹, Yngve Gustafson², Christine Brulin¹, Lena Aléx¹

¹Department of Nursing, Umeå University, Umeå, Sweden; pia.hedberg@nurs.umu

²Department of Community Medicine and Rehabilitation, Geriatric Medicine, Umeå University, Umeå, Sweden

Received 9 April 2013; revised 9 May 2013; accepted 17 May 2013

Copyright © 2013 Pia Hedberg *et al.* This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

This paper provides very old men's experiences of and reflections on purpose in life. The answers from an interview question about purpose in life from 23 men were analyzed by using qualitative content analysis. The results revealed three content areas: talking of purpose of life in general, talking of own purpose in life and reflections on purpose in life. Our findings showed that very old men experienced purpose in life most strongly when remembering the past and describing their earlier work. The old men reflected on purpose in life not just from their own individual perspectives, but also from a more reflective and analytic perspective.

Keywords: Aging; Men; Narrative Analysis; Qualitative Content Analysis; Purpose in Life

1. INTRODUCTION

This study is part of the Umeå 85+ study in the north of Sweden, which focuses on health and outlook on life in the very old. The research in the Umeå 85+ study has resulted in several theses e.g. [1-5] describing the very old from various perspectives—both the good aging and the threats against the good aging. The intent of this study was to describe how very old men experience and reflect on purpose in life. In the first part of the 20th century, men and women lived mainly in separate spheres; being a man in Sweden was characterized by being the breadwinner of the family, while being a woman was characterized by taking care of the children and the household [6]. Hirdman [7] pointed out that in Swedish society men have usually been seen as the norm and have been more highly valued than women. Her theory, however, was grounded on men and women who still active in society. Research into various life experiences among older men is lacking. Courtney [8] has found that old men do not fully use the physical and mental health services

available for their physical and mental health needs, nor do they seek medical help as often as women. Courtenay [9] also suggests that men commonly suffer in silence, deal with their problems alone, and may refuse to seek medical help because their ideas about normative masculinity demand an appropriately stoic behavior from a man. However, gender researchers have pointed out that there is more than one masculinity, and these various masculinities can be constructed in different ways depending on historical and societal circumstances [10,11].

Knodel and Ofstedal [12] argue that old men are made invisible in research about old people and that it is necessary to focus on this group. Calasanti and King [13] suggest that old men struggle not only against society's attitudes toward very old people, but also against society no longer seeing them as men, as age quickly overshadows gender in how they are viewed. Because old men tend both to keep silent about their needs and to be overlooked by society, it is important that their lives and perceptions be further researched.

The very old age group in Sweden is increasing, and the average life expectancy for men at birth in Sweden is now 78.4 years [14]. Research on purpose in life in the elderly has been carried out in various ways. For example Pinquart [15] found that having a high quantity and quality of social contacts are associated with higher purpose in life among older people.

Earlier research has shown that men aged over 75 years who live alone were more isolated than women and had less developed social networks compared to women in the same age [16,17]. Davidson *et al.* [17] showed that old men in day centers are not involved in social organizations to the same extent as older women. Because social contacts have been shown to be associated with purpose in life and old men live more isolated lives, we were interested in studying old men's experiences of purpose in life.

Purpose or meaning in life is a psychological construct that refers to people's ability to find meaning in their life experiences and their everyday situations [18]. Frankl

[18] posited the will to find meaning as the primary driving force for all human beings. Failure to find meaning in life, he wrote, produces negative psychological effects, especially feelings of boredom and emptiness, described as an existential vacuum [19].

Several cross-sectional studies of purpose in life in middle-aged men focus on the association between purpose in life and various health problems that men may live with, for example HIV [20,21], recovery from knee surgery [22], and spinal cord injury [23]. An earlier study within the Umeå 85+ study focused on purpose in life among very old women [24], but as far as we know no study has yet described experiences of purpose in life among very old men.

Research in purpose in life in very old men is very sparse and should be further investigated. The aim of this study, therefore, is to illuminate very old men's experiences of and reflections on purpose in life.

2. METHOD

This study was performed in the years 2000 and 2002 and included people living in a medium-sized town and surrounding rural areas in a county in northern Sweden. As part of the Umeå 85+ project [1,2], invitation to participate was extended to all individuals aged 95 or over, all individuals aged 90, and every second individual aged 85. The inclusion criteria were age, being able to answer Likert-type questionnaires, and having the strength to participate in interviews. The participants were assured confidentiality and anonymity in the presentation of the results, and they were assured they could withdraw from the study without having to give a reason. The study was approved by the Ethics Committee of the Medical Faculty, Umeå University (Um dnr 99-326, 00-171).

2.1. Participants

Of the 69 men who had answered the purpose in life (PIL) scale [24], 51 were interviewed about various aspects of their experiences of becoming and being very old. These interviews were tape-recorded and transcribed verbatim. In the first step of the selection of the text, all the text containing various aspects of their lives, such as experiences of aging, difficult and positive life events, and PIL from 30 interviews (10 interviews from those measuring highest and 10 from those measuring lowest and 10 from those who had estimated themselves as average of the PIL scale) was analyzed. After this first analysis of all the text only the text from the specific questions about PIL was chosen for analysis. Twenty-three men out of 30 had narrated about their meaning of purpose in life and these narratives were included in this study. Eight of the participants were 85 years old, ten were 90 years old, and five were 95 years of age or

older. A majority of the men lived alone ($n = 18$), five lived in an institution, ten were independent in activities in daily life (ADL), two had impaired reading vision, and ten of the men had impaired hearing. None of the men included in the study was diagnosed as depressed.

2.2. Data Collection

The participants were informed about the study and invited to take part by letter and by telephone. Initially, the participants answered a number of questionnaires, including the Purpose in Life test [25]. On a second occasion specific to this study, about one week later, narrative interviews were performed at the participants' homes. The interviews lasted between 30 and 90 minutes each and were conducted by two men and five women, all nurse researchers belonging to the same research team. In this study, we focus on answers from the specific questions asked about purpose in life.

2.3. Analysis

The interviews were analyzed using qualitative content analysis a method useful in analysis of person's experiences, reflections, and attitudes as described by [26-28]. In the first step all the text about PIL was read through by two of the authors to obtain an overall picture of how purpose in life was narrated. The interviews were divided into "meaning units" (sentences and fragments with latent meanings), codes, and categories, and sorted into three content areas. Thereafter we looked for discourses about the way PIL was being addressed and "talked" about. The analysis was performed separately by two of the authors and discussed in depth by two of the authors until consensus was reached. To confirm the results, the categories and the found discourses (as shown in **Table 1**) were discussed and reflected upon several times by all the authors. The results are presented in three content areas with underlying categories illustrated by quotations.

3. RESULTS

The participants talked about purpose in life from various perspectives, which were categorized into three main discourses: 1) Talking of purpose of life in general, including the categories work, struggle, forming a family, and confidence, 2) Talking of own purpose in life, including the categories happiness, adaptation, and looking forward, and 3) Reflecting on purpose in life including the categories limited meaning, health, an honorable life, and the ability to face death.

3.1. Talking of Purpose of Life in General

Work was stressed as an important source of purpose for men who had worked hard earlier in life, whose work

Table 1. Content areas and categories.

Purpose of life as a whole	Purpose in everyday life	Reflections on purpose in life
Work Struggle Forming a family Confidence	Happiness Adaptation Looking forward	Limited meaning Health Honorable life Ability to face death

had dominated their lives, and who described themselves as “workaholics.” Work building their own homes was very important to their experiences of purpose in life, as were feelings of self-respect and personal worth from their previous work: “Purpose in life is primarily work. I had a fantastic job and I was keen to manage my job well.” The men had experienced hard times and lack of resources, and their earlier lives were described as dominated by hard work.

Struggle was expressed in terms of the struggle for money, and this struggle gave the very old generation strength and purpose. “In my childhood there was never 25 cents left, and that was of course a hard time.” While they were proud of their earlier struggles, the old men felt that younger people did not respect or appreciate the older generation’s hard work to survive. Some thought that people today made too much money for too little effort compared with the old days when it was much harder to earn a living.

Forming a family was also a main purpose in life—both living with a loving wife and feeling that the marriage had been totally perfect without any disputes. One man’s purpose in life was expressed in terms of the joy of having married, settled down, and “created a family.”

One man said: “I met my lovely wife, and we have had it very nice together and got very nice children and grandchildren, so it has always been positive.” Having children and grandchildren was stressed as important for purpose in life. One man talked about how taking care of his grandchild for long periods contributed to his having a purpose in life.

To have confidence in relation to other people, society, and a higher power were stressed as important for experiencing purpose in life as a whole. The confidence in God was expressed as the ability during life to rely on God and place everything in God’s hands. To have confidence and rely on God made both daily news and the reality of death understandable, as one man said: “When I read the newspaper and see all the obituaries, I feel confident that there is a higher power, and this faith gives me strength.”

3.2. Talking of Own Purpose in Life

Experiencing purpose in life was also described as being happy in everyday life and thinking positively in every situation. Making the most of one’s day was expressed as a purposeful act: “I see the positive in every

day, and tomorrow is a new day.” Finding joy in everyday situations and taking each day as it comes were important for purpose in life: “I take the day as it comes. I never dig myself into things. I always see things from the bright side. I go to the shop and talk to people.”

Being able to adapt to bodily changes, to continue to feel satisfied in life despite functional decline, and maintaining everyday activities were also mentioned as contributing to purpose in life: “For me, purpose in life is being able to get up in the morning and get dressed. That is worth a great deal. If you can’t do that and you just lay in bed, there would be no purpose in life at all.” Adaption was described by one man who expressed relief about knowing that he would soon move into an apartment in a block with services for the elderly and not have to worry about his daily shopping anymore.

Continuing with hobbies was also stressed as giving purpose in life: “I went fishing this spring in the river, and I got seven large graylings, and I have fish left in the freezer. I have always had this as a hobby.” Looking forward, continuing with life, and making plans for the future despite very old age were important. One man’s plans for the summer and for the future were especially ambitious: “I have very clear goals and purpose; I have announced that I will plant six acres of forest.” Maintaining interest in life and what is happening in the world and looking ahead contributed to meaningfulness. Despite the fact that some of the men were prevented by disability from continuing to work outside the home, it was still important to feel that they could do their duty to make life meaningful: “I have to fill in my income-tax return and do my duty.”

3.3. Reflection on Purpose in Life

Reflections on purpose in life included questioning whether there was a purpose in life at all, feelings of complete boredom, and the sense that every day was exactly the same as the day before. The view that purpose in life was limited was expressed as assertions that all humans were totally bound by heredity and environment and was therefore powerless to do or say anything to change that fact. “Well, you see, I have in fact given up on everything.”

Reflecting on purpose in life in relation to their physical abilities, the men talked about their treatment by other people who see them as no longer physically capable. “Since I retired, it is like I have to break in to get my

voice heard in a conversation.” Within this category they stressed the importance of being healthy, both for themselves and for their families.

Living an honorable life, being good to others, knowing they had done their best and been decent were important to feeling purpose in life: “Just to live decently, you don’t need to live like a king.” Some men said it was important to “love your neighbor as you love yourself.” Living an exciting and challenging life was also seen to contribute to purpose in life. One man talked about his experiences of traveling around the world and seeing different things as an old man; however, he wondered whether traveling could be the purpose in life, or whether it was just something fun or pleasurable to do. “It was nice to travel, but I’m not really sure if this is really the meaning, because before we had those opportunities to travel, there was also meaning in life.” The narratives indicated that the men experienced more purpose in life when they were younger. “When I was younger I wanted so much. I wanted to go forward, so I think purpose in life was greater then.” The men reflected on why people are born, work all their life, and then die, and what might happen after death. Their reflections upon death were told without any fear and with acceptance that there was nothing they could do to avoid it. “You have to face death when it comes.”

4. DISCUSSION

The aim of the study was to illuminate very old men’s experiences of and reflections on purpose in life. The results revealed three content areas: purpose of life as a whole; purpose in everyday life; and reflections on purpose in life. The joy of work was prominent in almost all of the narratives and pride in previous work was stressed as important to purpose in life. From the historical perspective, in the first part of the 19th century “being a man” entailed being the provider and usually the sole financial support for the household [6]. These men’s emphasis on their own physical hard work as important for purpose in life can be seen in light of Connell’s [29] (1995) theory of hegemonic masculinity, which is the masculinity that is the most valued in a specific historical society and requires all men to position themselves in relation to it [10]. Men’s emphasis on the importance of work in this study was probably influenced by the importance of the traditional role requirement of a man to be a strong man. The men had also experienced poverty as children, and their lives were characterized by that hard work was a possibility to increase their economic status.

The men told with pride how they had built their own houses and created their homes. Russell [30] reported that older men and women discuss the meaning of home differently. Men attribute their feelings for home in terms of building and renovating their physical houses, which

they see as identical to forming the home. The meaning of home for women, on the other hand, is deeply connected to their personal identities: women see the home as both an extension of themselves and the place where they should be [30].

The men described their ability to adapt as important to their ability to experience purpose in life. Men who belonged to the oldest old spoke of adapting in terms of the importance of being able to get up and get dressed. Baltes & Baltes [31] have constructed a model of successful aging called selective optimization with compensation (SOC). The SOC model builds on the assumption that throughout life people have both opportunities and limitations, including illnesses that can be managed or mastered by using a combination of the three components of the model: selection, optimization, and compensation [31]. Freud & Baltes [32] found that people who used SOC life-management behaviors such as compensation were more satisfied in life. Reflecting on past achievements to reconnect to associated self-respect and personal worth is one way older people may independently, or with use of the SOC model use as a strategic model for maintaining purpose in life.

Our study showed that the oldest old men experienced and reflected over purpose in life which can be seen as a contradiction to other descriptions of belonging to the oldest old as for instance in Ferrucci *et al.*, [33] who describe that very old people just tend to be described as a homogenous group with functional decline and high consumption of health care resources. Calasanti and King [13] have reflected over how old men are described in media. They argued that a more refined form of agism is an attempt to portray old men in a more positive light by setting up middle-aged men as the standard of virility and health. Doing so the description of being a man seems not be congruent with being old in reality. Green [34] argued that views on very old men are focused on the predominant effort to understand men’s aging bodies and health problems, in particular their medical problems. He means that it is vitally important that very old men are seen as a heterogeneous group with various levels of strength and abilities instead of a homogeneous group defined by frailty [34]. Our study shows that in spite of their very old age, the oldest old men do experienced purpose in life.

Our study shows the importance of having hobbies and making future plans in maintaining purpose in life. Being healthy was stressed as important for purpose in life. Healthy aging is a complex process of adapting to physical, psychological, and social changes across the life span [35]. According to Rowe and Khan’s [36] model of healthy aging, it is necessary for older people to play an active role in maintaining their physical and mental health and to optimize their capacity as much as pos-

sible until the end of life and Purpose in life has long been hypothesized to be an important determinant for physical health and well-being [37]. Thus, these concepts seem to be closely interrelated.

This study shows that very old men experience purpose in life mainly when remembering the past and when making future plans, which is in contrast to the Hedberg *et al.* [38] study of purpose in life in very old women. The women in that study seemed to enjoy life and were grateful even for small daily things, such as having the strength to wipe off the table. The women expressed purpose in life as taking the day as it comes, and having family and friends around for a chat was seen as purposeful, while the men's narratives of purpose in life focused mainly on their previous work. Very old men and women seem to find purpose in life in different terms, with very old men finding purpose in life either in the past or in the future, and very old women finding purpose in the present and their everyday life. Men, however, seem to reflect more over the concept purpose in life than women do [5]. This finding may be interpreted as men are socialized to become reflecting subjects, while women are socialized to become immanent objects.

One man in our study expressed negative feelings about purpose in life and said that he had practically given up. From the perspective of Frankl [18], he can be seen as living in an existential vacuum and; from a biological medical perspective he is likely depressed. It is essential in the care of very old men and women to help them maintain purpose in life in order to prevent the risk of existential vacuum, which can lead to psychological ill-health. Purpose in life seems to be relevant and worth being reflected on for very old men even in their latest part of life. Likewise if there were statements that showed that purpose in life was connected to faith in god, no men told about that in addition to purpose in life there also could be a purpose in death.

5. METHODOLOGICAL CONSIDERATION

For this study we analyzed data about purpose in life from 23 men who completed the PIL questionnaire. Throughout the process we discussed the analysis and our interpretation in depth, both among the authors and within a seminar group, in order to ensure that we did not over-interpret the text. Our analysis is also strengthened by our first analysis of 30 interviews. The PIL scores among the 23 included men ranging from 77 to 134, and can therefore be seen as a representative sample of all men answering the PIL test ($n = 69$) in the larger study. One limitation of this study is that the participants were a selected group of cognitively healthy individuals who cannot be assumed to be representative of the entire population of very old people. However, we believe that

our results may be transferable to other very old people in a similar context.

6. CONCLUSION

Our findings showed that very old men talked about PIL in various ways. They experienced purpose in life most strongly when remembering the past and describing their earlier work. The old men also reflected on purpose in life not just from their own individual perspectives, but also from a more reflective and analytic perspective. From a nursing perspective it ought to be of importance to listen to, and open up for how old men talk about PIL for enhancing their possibility to either experience PIL, or their ability to create PIL in their everyday life.

7. ACKNOWLEDGEMENTS

We are grateful an anonymous referee for helpful comments. All errors are ours.

REFERENCES

- [1] von Heideken Wägert, P. (2006) Health, physical ability, falls and morale in very old people: The Umeå 85+ study. Umeå University Medical Dissertations, New Series No. 1038-ISSN 0346-6612-ISBN 91-7264-130-4, Umeå University, Umeå.
- [2] Nygren, B. (2006) Inner strength among the oldest old; a good aging. Umeå University Medical Dissertations, New Series No. 1065-ISBN 91-7264-201-7, Umeå University, Umeå.
- [3] Bergdahl, E. (2007) Depression among the very old. Umeå University Medical Dissertations, New Series No. 1132-ISSN 0346-6612-ISBN 978-7264-423-6, Umeå University, Umeå.
- [4] Aléx, L. (2007) Old people's narratives about growing and being old from gender and ethnicity perspectives. Umeå University Medical Dissertations, New Series No. 1081-ISSN 0346-6612-ISBN 978-7264-248-5, Umeå University, Umeå.
- [5] Hedberg, P. (2010) Purpose in life among very old people. Umeå University Medical Dissertations, New Series No 1384. ISSN 0346-6612, ISBN 978-91-7459-106-4, Umeå University, Umeå.
- [6] Hirdman, Y. and Andreasen, Y. (1991) The gender system. In: Andreasen, T., Borchorst, A., Dahlerup, D., Lous, L. and Nielsen, R., Eds., *Moving On*, Aarhus University Press, Aarhus, 187-207.
- [7] Hirdman, Y. (1994) Women—From possibility to problem? Arbetslivscentrum, Stockholm.
- [8] Courtenay, W.H. (2000) Constructions of masculinity and their influence on men's well-being: A theory of gender and health. *Social Science and Medicine*, **50**, 1385-1402. [doi:10.1016/S0277-9536\(99\)00390-1](https://doi.org/10.1016/S0277-9536(99)00390-1)
- [9] Courtenay, W.H. (2000) Behavioral factors associated with disease, injury and death among men. Evidence and

- implications for prevention. *The Journal of Men's Studies*, **9**, 81-142. doi:10.3149/jms.0901.81
- [10] Connell, R.W. and Messerschmidt, J.W. (2005) Hegemonic masculinity. Rethinking the concept. *Gender & Society*, **19**, 829-859. doi:10.1177/0891243205278639
- [11] Aléx, L., Hammarström, A., Norberg, A. and Lundman, B. (2008) Construction of masculinities among men aged 85 and older in the north of Sweden. *Journal of Clinical Nursing*, **17**, 451-459. doi:10.1111/j.1365-2702.2007.01961.x
- [12] Knodel, J. and Ofstedal, M.B. (2003) Gender and aging in the developing world: Where are the men? *Population and Development Review*, **29**, 677-698. doi:10.1111/j.1728-4457.2003.00677.x
- [13] Calasanti, T. and King, N. (2005) Firming the floppy penis: Age, class, and gender relations in the lives of old men. *Men and Masculinities*, **8**, 23. doi:10.1177/1097184X04268799
- [14] Swedish Statistics Bureau (SCB) (2009) Population of Sweden in a cohort 2007-2050. Statistics Sweden, Stockholm.
- [15] Pinguat, M. (2002) Creating and maintaining purpose in life in old age: A meta-analysis. *Ageing International*, **27**, 90-114. doi:10.1007/s12126-002-1004-2
- [16] Encel, S., Kay, M. and Zidekowski, G. (1996) Keeping in touch: Older people living alone. New South Wales Consultative Committee on Ageing, Sydney.
- [17] Davidson, K., Daly, T. and Arber, S. (2003) Older men, social integration and organizational activities. *Social Policy & Society*, **2**, 81-89. doi:10.1017/S1474746403001118
- [18] Frankl, V. (1958) The will to meaning. *Journal of Pastoral Care*, **12**, 82-88.
- [19] Frankl, V. (1955) The doctor and the soul. Alfred A Knopf, New York.
- [20] Bechtel, G. (1994) Purpose in life among gay men with HIV disease. *Nurse Connections*, **7**, 5-11.
- [21] Lewis, M.P., Erlen, J.A., Dabbs, A.D., Breneman, K. and Cook, C. (2006) The utility of the purpose-in-life test in persons with AIDS. *Journal of the Association of Nurses in AIDS Care*, **17**, 51-59. doi:10.1016/j.jana.2005.11.005
- [22] Smith, B.W. and Zautra, A.J. (2004) The role of purpose in life in recovery from knee surgery. *International Journal of Behavioral Medicine*, **11**, 197-202. doi:10.1207/s15327558ijbm1104_2
- [23] Kruse, A. and Schmitt, E. (2006) A multidimensional scale for the measurement of agreement with age stereotypes and the salience of age in social interaction. *Ageing and Society*, **26**, 393-411. doi:10.1017/S0144686X06004703
- [24] Hedberg, P., Gustafson, Y. and Brulin, C. (2010) Purpose in life among men and women aged 85 years and older. *International Journal of Aging and Human Development*, **70**, 213-229. doi:10.2190/AG.70.3.c
- [25] Crumbaugh, J. and Maholick, L.T. (1964) An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology*, **20**, 200-207. doi:10.1002/1097-4679(196404)20:2<200::AID-JCLP2270200203>3.0.CO;2-U
- [26] Downe-Wamboldt, B. (1992) Content analysis: Method, applications, and issues. *Health Care for Women International*, **13**, 313-321. doi:10.1080/07399339209516006
- [27] Graneheim, U.H. and Lundman, B. (2004) Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, **24**, 105-112. doi:10.1016/j.nedt.2003.10.001
- [28] Krippendorff, K. (2004) Content analysis: An introduction to its methodology. Sage, Thousand Oaks.
- [29] Connell, R.W. (1995) Masculinities. University of California Press, Berkeley.
- [30] Russell, C. (2007) What do older women and men want? Gender differences in the lived experience of ageing. *Current Sociology*, **55**, 173-192. doi:10.1177/0011392107073300
- [31] Baltes, P.B. and Baltes, M.M. (1990) Psychological perspectives on successful aging: The model of selective optimization with compensation. In: Baltes, P.B. and Baltes, M.M., Eds., *Successful Aging: Perspectives from the Behavioral Sciences*, Cambridge University Press, New York, 1-34. doi:10.1017/CBO9780511665684.003
- [32] Freund, A.M. and Baltes, P.B. (1998) Selection, optimization, and compensation as strategies of life management: Correlation with subjective indicators of successful aging. *Psychology and Aging*, **13**, 531-543. doi:10.1037/0882-7974.13.4.531
- [33] Ferrucci, L., Guralnik, J.M., Studenski, S., Fried, L.P., Cutler Jr., G.B. and Walston, J.D. (2004) Designing randomized controlled trials aimed at preventing or delaying functional decline and disability in frail older persons: A consensus report. *Journal of American Geriatric Society*, **52**, 625-634. doi:10.1111/j.1532-5415.2004.52174.x
- [34] Green, B.S. (1993) Gerontology and the construction of old age: A study in discourse analysis. Aldine de Gruyter, Hawthorne.
- [35] Peel, N., Bartlett, H. and McClure, R. (2004) Healthy ageing: How is it defined and measured? *Australasian Journal on Ageing*, **23**, 115-119. doi:10.1111/j.1741-6612.2004.00035.x
- [36] Rowe, J.W. and Khan, R.I. (1994) Successful aging. *The Gerontologist*, **37**, 433-440. doi:10.1093/geront/37.4.433
- [37] Ryff, C.D., Singer, B.H. and Dienberg, L.G. (2004) Positive health: Connecting well-being with biology. *Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences*, **359**, 1383-1394. doi:10.1098/rstb.2004.1521
- [38] Hedberg, P., Brulin, C. and Aléx, L. (2009) Experiences of purpose in life when becoming and being a very old woman. *Journal of Women & Aging*, **21**, 125-137. doi:10.1080/08952840902837145