

The use of Photovoice for recovery research of cancer survivors

A systematic review

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Abstract

Background: Cancer is one of the most prevalent and feared diseases. It has severe physical as well as psychological consequences. This is also true for cancer survivors. The experience of having had cancer is a drastic impression. That is why, the minority group of cancer survivors has special needs. A method which specifically was developed for giving a voice to such minority groups is Photovoice. It is a participatory visual method. Traditionally, it works according to several main parts. First, the participants get a specific theme about which they have to take photos. After completion of the assignment, the participants discuss their experiences systematically. Finally, efforts are made to reach key stakeholders and politics. All steps are carried out in a group context. The aim of this study is to systematically review articles thematising studies which make use of Photovoice for recovery research of cancer survivors. This for the purpose of assessing the state of the art concerning this topic. Moreover, six sub questions were formulated.

Method: This systematic review was carried out according to the PRISMA-P framework. First, an online literature search was conducted using three online databases. During that process, five inclusion criteria were applied. After screening of the articles, eight studies in ten articles were included for the data extraction. For systematically extracting the data, six pre-defined criteria were utilised.

Results: The studies involved cancer survivors which belonged to a variety of minority groups. Most studies primarily worked within a group context and included an introductory meeting and several systematic group discussions. All studies lead to positive outreach effects by the own commitment of participants. All studies analysed the transcripts of the discussions by using ATLAS/ti or NVivo. Most studies actively involved the participants in the whole process. The most common results found in the studies are the needs of the cancer survivors, the challenges they had to overcome and the coping-strategies and motivators they made use of. The authors reflect that Photovoice is a useful method for investigating socially sensitive topics. The participants report that they have strong positive effects from their participation because of the reflective power of photographs and the exchange with fellow sufferers.

Conclusions: Basically, it can be said that the state of the art concerning the use of Photovoice in recovery research of cancer survivors is that it is a promising approach. The needs and experiences of the participants are investigated objectively and sensitively. Moreover, do the minority-group members even seem to benefit from the programme. That is why, further research concerning the use of Photovoice with cancer survivors is absolutely recommended. Especially, the therapeutic potential of this approach should be investigated.

Samenvatting

Achtergrond: Kanker is een van de meest voorkomende en gevreesde ziektes. Het heeft zowel ernstige fysieke als psychische consequenties. Dat betreft ook kanker overlevende. De ervaring kanker te hebben is een erge impressie. Uit deze reden heeft de minderheidsgroep van kanker overlevende specifieke behoeftes. Een methode die precies voor het gebruik met dit soort minderheidsgroepen werd ontwikkeld is Photovoice. Het is een zo genoemde deelnemende visuele methode. Traditioneel zijn er vijf hoofdonderdelen. Ten eerste krijgen de deelnemers een specifiek thema waarover ze moeten fotograferen. Als de opgave klaar is, discussiëren de deelnemers hun ervaringen systematisch. Ten slotte wordt verzocht om invloedrijke personen en de politiek te bereiken. Alle stappen worden in groepscontext uitgevoerd. Het doel van dit onderzoek is, artikelen over het gebruik van Photovoice voor het herstel research van kanker overlevenden systematisch te onderzoeken. Hiermee wordt aangestuurd de stand van zaken over dit thema te bestuderen. Daarvoor werden zes deelvragen geformuleerd.

Methode: Deze systematische review werd uitgevoerd volgens het PRISMA-P framework. Ten eerste, werd online naar literatuur gezocht. Hiervoor werden drie online bibliotheken gebruikt. Tijdens dit proces werden vijf inclusiecriteria gebruikt. Na het screenen van de artikelen werden acht studies in de data extractie geïncludeerd. Om de data systematisch te kunnen extraheren werden zes criteria toegepast.

Resultaten: De studies werkten met kanker overlevende die tot verschillende minderheidsgroepen behoren. De meeste studies werkten in eerste lijn in groepscontext en hadden een inleidende meeting en meerdere systematische groepsdiscussies. Alle studies resulteerden in positieve verdergaande effecten door het eigen inbreng van de deelnemers. Alle studies analyseerden de transcripten van de discussies door middel van ATALS/ti of NVivo. De meeste studies hebben de deelnemers actief betrokken in het hele proces. De meest voorkomende resultaten waren de behoeftes van de overlevende, de uitdagingen die ze moesten overkomen en de strategieën die ze daarbij hebben gebruikt. De auteurs reflecteren dat Photovoice is nuttige methode om sociaal gevoelige thema's te onderzoeken. De deelnemers geven aan dat ze sterke positieve effecten door de deelname hadden. Dat door de reflectieve sterke van de foto's en de uitwisseling met lotgenoten.

Conclusies: Het kan worden geconcludeerd dat Photovoice een veelbelovend aanpak is. De behoeftes en ervaringen van de participanten worden objectief en gevoelig onderzocht. Verder profiteren ze zelfs van het programma. Daarom is verder onderzoek over het gebruik van Photovoice met kanker overlevende aanbevolen. Vooral het therapeutische potentieel van deze aanpak zal onderzocht moeten worden.

1. Introduction

When hearing the term cancer, in most people a great quantity of associations arise. Most people know another person who suffered or even died of cancer. Moreover, one also knows many different forms of this disease. When looking at the media, one finds a lot of information and reports about this topic. There even exist an unrepresentative survey, which suggest that this diagnosis is the most feared among all age groups (Statista, 2016).

Basically, it gets obvious that cancer is of great concern within society. That is why, it is not only physically, but also psychologically a serious illness and enormous strain. Therefore, it is comprehensible that also or particularly cancer survivors have specific needs, especially when it comes to reintegration into everyday life and career. In order to give a voice to this group and to understand their needs and experiences, Photovoice can serve as a useful tool. It was created specifically for the purpose of gaining attention for minority groups. The visual medium photo gives the opportunity to express experiences and needs in a concise manner, to reflect and discuss about them and finally to bring about positive change in politics as well as society. That is why, this systematic review addresses the use of Photovoice within recovery research of cancer survivors. It investigates the intersection of an important and interesting group and an innovative and promising method which was created to give a platform to exactly such groups.

1.1 Cancer

Cancer denotes a group of diseases which includes more than 100 different types. Any part of the body can be affected by this medical condition (World Health Organisation, 2013; World Health Organisation, 2015). The main characteristic of this group of diseases is “the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs” (World Health Organisation, 2015).

Cancer has an enormous impact on health statistics worldwide. In 2008, 13% of all deaths worldwide were caused by cancer (World Health Organisation, 2013). In 2012, there were 14.1 million new cancer cases and 8.2 million cancer deaths worldwide. Moreover, 32.6 million people were living with a history of cancer, within five years of diagnosis (World Health Organisation, 2016).

Basically, the most common types of cancer can be cured if they are detected early and treated adequately (World Health Organisation, 2013). Moreover, the number of cancer survivors, living after more than five years after the diagnosis, is increasing over the last years because of “advances in cancer screening, early detection, treatment strategies, and management of acute treatment toxicities” (Stein, Syrjala & Andrykowski, 2008).

Even if, many cancer survivors are able to continue having a normal life, the

diagnosis and treatment of such a serious disease also can lead to physical as well as psychological long-term effects (Stein et al., 2008). First, most cancer survivors report a relatively high quality of life. But there are also some limitations which are more prevalent within this population. These include aspects like fatigue, sexual problems, musculoskeletal symptoms, problems with returning to work and restricted physical and social activities (Stein et al., 2008). Another aspect to mention is that a severe experience, such as a cancer diagnosis, can act as a cause for psychological disorders, such as post-traumatic disorders or depressions (Hahn, Hays, Kahn, Litwin & Ganz, 2014). But estimations of prevalence of negative psychological effects are strongly heterogeneous (Hahn et al., 2014; Stein et al., 2008). Take, for example, the case of post-traumatic stress disorder. In a review from 2002, the estimated prevalence among cancer survivors ranged from 2-32%. These results were caused among others by differences in measurement and scoring (Hahn et al., 2014). Nevertheless, it is important to mention that cancer survivorship can also cause positive psychological consequences. According to Stein et al. (2008), a history of cancer diagnosis can lead to post-traumatic growth. This is defined by aspects like “enhanced self-esteem, greater life appreciation and meaning, heightened spirituality, and greater feelings of peace and purposefulness” (Stein et al., 2008). But, again the estimations of prevalence are strongly varying. This is presumably caused by a lack of definition of the concept of post-traumatic growth and other possible positive psychological effects of a cancer diagnosis (Stein et al., 2008).

Basically, it can be said that cancer survivors can be defined as a minority group. This is a distinct group in society which “shares common group characteristics and is forced to occupy low status in society because of prejudice and discrimination” (Andersen & Taylor, 2008). In this case, minority does not refer to the numerical condition, but to the subordinated status within society (Andersen & Taylor, 2008). That is true for cancer survivors because of several reasons. First, they suffer from restricted physical and social activities (Stein et al., 2008). This can be due to decline of abilities, but also because of lack of support and avoidance on the part of society. Another important reason is that cancer survivors have many short-term and long-term work-related problems including unemployment and work satisfaction (Mehnert, de Boer, & Feuerstein, 2013). If members of ethnical or racial minority groups, such as African Americans or Aborigines, are surviving cancer, these problems do even compound.

1.2 Photovoice

A good method to understand the special needs of this specific minority group can be participatory visual methods. In this kind of method, participants use photos to describe their experiences. By that, the researchers get to know the point of view from those affected.

Through visual media, the facts are shown directly and existing biases are avoided. Studies on the effects of participatory visual methods suggest that it improves the reflection on and the advocacy for the own minority group of the participants. Moreover, it is said to improve understanding of the whole context and creates a “shared body of knowledge” (Lorenz & Kolb, 2009) between minority group members and society.

One example of such a participatory visual method is photo-elicitation. This method uses photographs to gain deeper understanding of the point of view of the participant during research interviews. It is important to mention that the visuals can be generated by either the participants or the researcher (Lorenz & Kolb, 2009). A different example of such a method is Photovoice. As opposed to the former, this method is carried out as a group activity. The participants actively take photos that represent their experiences concerning a specific topic and discuss them afterwards. Moreover, outreach activities, such as public exhibitions, are intended (Lorenz & Kolb, 2009). These aspects (group-context, autonomous production of photos and outreach activities) distinguish Photovoice from other participatory visual methods, such as photo elicitation.

That is why, in this study it was chosen to investigate the use of Photovoice. Other aspects which affected the decision were that it was developed specifically for the work with minority groups, such as cancer survivors (Wang & Burris, 1997). Moreover, the participants have a strong impact on the research process and results, which makes it particularly interesting. In the following paragraphs, the method of Photovoice will be introduced and explained more detailed.

Photovoice, which earlier was called “photo novella” (Wang & Burris, 1997), is a research process based on participatory photography which was developed by Wang and her colleagues in the 1990s (Catalani & Minkler, 2010). It was founded in the UK, but also works internationally (Photovoice, 2016). The main idea is that Photovoice gives cameras to members of socially excluded groups. By that, they get the chance to “identify, represent, and enhance their community” (Wang & Burris, 1997). Their vision is that “nobody should be denied the right to speak out and be heard” (Photovoice, 2016).

Photovoice aspires three main goals. First, it seeks to give members of socially excluded groups the opportunity to present their own community and to reflect about it. Second, it organises group discussions of photographs with group- member and non-group members for the purpose of spreading knowledge and creating a critical dialogue about societal matters. Finally, it seeks to reach politics (Wang & Burris, 1997). Correspondingly, Photovoice’s slogan is called “Reframing the world” (Photovoice, 2016). Another guiding principle, found on Photovoice’s website, is that it is used to bring positive social changes (Photovoice, 2016).

Photovoice was developed based on (1) literature about critical consciousness,

feminist theory and documentary photography, (2) efforts against existing assumptions about authorship of representations, and (3) experiences from previous research using Photovoice (Wang & Burris, 1997). This previous research was a project called the “Yunnan Women’s Reproductive Health and Development Program” (Catalani & Minkler, 2010; Wang & Burris, 1997). In this study, the Photovoice project was used to teach the women to know and fight for their health needs. Moreover it was meant to activate communities and politics to effectively consider these needs. Thereby, it was tried to strengthen individual institutions (Wang, Yi, Tao & Carovano, 1998).

Basically, Photovoice’s work includes the following parts: First, the participants are introduced to the methodology and receive a camera training. Then, they are provided with a theme for the photographs and get enough time to fulfil the assignment. When the assignment is completed, the photos are systematically discussed. Finally, efforts are made to plan formats for sharing the results with key stakeholders. Traditionally, all of these steps are carried out in a group context (Lorenz & Kolb, 2009; Photovoice 2016; Wang, 1999).

Wang and Burris (1997) mention several advantages of Photovoice compared to other forms of research. First, it enables people to perceive the world from a minority group member’s perspective. These are perspectives which are normally overlooked (Wang & Burris, 1997). It offers insights that other methods could not provide. Moreover, photographs are seen as a “robust form of communication” (Wang & Burris, 1997). They give a genuine impression of the depicted situation. Another important aspect is that photography is a means that can be used by nearly everyone. It only requires little abilities. Furthermore, it also can be used with more uneducated groups because it does not require reading or writing (Wang & Burris, 1997). Finally, photography can depict a broad variety of settings which could not or hardly be covered through traditional research methods (Wang & Burris, 1997).

In its beginnings, Photovoice was primarily used in sociological context, but nowadays it is used for a broad variety of scientific fields. According to Catalani and Minkler (2010), it is used for themes “ranging from infectious disease epidemics and chronic health problems to political violence and discrimination”. Moreover, it works with all age groups and in countries all over the world (Catalani & Minkler, 2010; Photovoice, 2016). When searching for Photovoice via Scopus, one of the largest scientific databases (Elsevier, 2016), one gets 575 results (state 05.03.2016) ranged in 20 disciplines, such as social sciences or psychology. This shows the great relevance of this growing approach.

1.3 Cancer and Photovoice

In the last years, there have already been performed studies and reviews about the use of Photovoice within the context of health care. One important example is a review conducted by Catalani and Minkler (2010) about the use of Photovoice in health and public health. The

authors tried to find out (a) what defines the Photovoice process, (b) what are the outcomes associated with Photovoice, and (c) how the level of community participation is related to Photovoice processes and outcomes. They reviewed 37 peer-reviewed articles by using a descriptive coding scheme and a framework dividing the studies into low, medium and high participation studies. It was found that the Photovoice process is primarily defined by the use of group discussions. Moreover, most studies made use of several data-sources for the purpose of triangulating the findings. The outcomes of the studies have been divided into three categories: (1) the action and advocacy for the own community increased, (2) the understanding of the group's needs and capabilities enhanced and (3) there was an individual empowerment within the participants. Finally, it was found that studies with high quality of participation have some aspects in common: the studies take longer, stress community and training aspects and strongly involve the participants into the research process (Catalani & Minkler, 2010). This study gave a deep insight into the use of Photovoice within health care and provides many practical implications.

The aim of this paper is to specify the study of Catalani and Minkler (2010) by investigating *the use of Photovoice for recovery research of cancer survivors*. This will be done by carrying out a systematic review of peer-reviewed articles thematising this subject. By that, it will be investigated what is the current state of the art. For that purpose, the following sub questions were formulated:

Which participants are addressed in the studies?

What defines the Photovoice procedure?

What can be said about the data analysis?

Which results are found in the studies?

What can be said about the scope of those results?

Which reflections are given concerning the Photovoice method?

2. Method

2.1 Data sources and search strategy

This systematic review will be based on the PRISMA-P framework (Moher, Shamsser, Clarke, Ghersi, Liberati, Petticrew, Shekelle, Stewart & PRISMA-P Group, 2015) which consists of a four step approach. The first step of identification was carried out by conducting an online literature search. For that purpose, three online databases were selected: Scopus, PsycInfo and PubMed. Two different search constructs were formulated: the methodological

construct and the disease construct. The former refers to the participatory visual method which is used in the studies. Here, the main term Photovoice and its traditional name photo novella are used. The latter focuses on participants of the studies. Basically, these should be cancer patients. Additionally, the terms leukaemia, tumour and lymphoma were used. The related search keywords are depicted in Figure 1. This search strategy was conducted at April 29th 2016 and resulted in a data pool consisting of 56 articles.

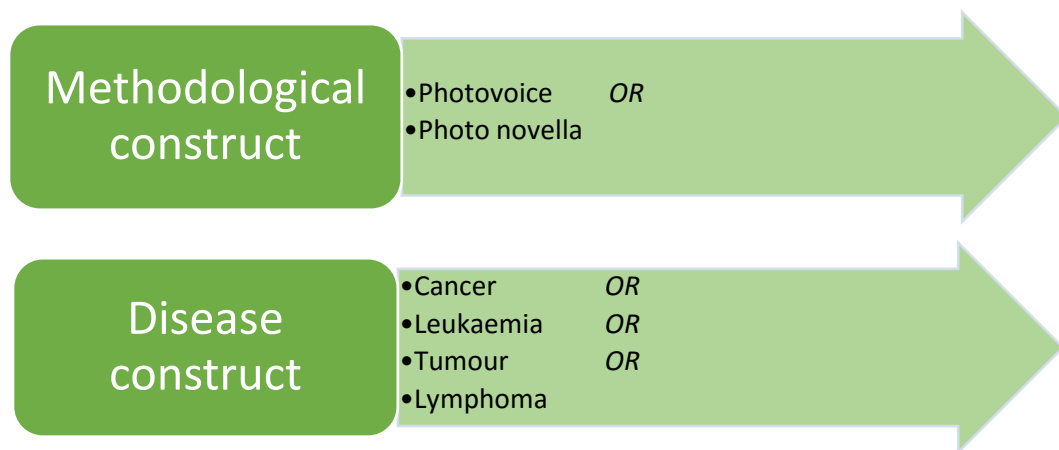


Figure 1. Search construct and keywords.

2.2 Inclusion criteria

For to be included in this systematic review the articles have to fulfil the following criteria: (1) They are retrievable online, (2) are available in English, Dutch or German, (3) are no reviews themselves, (4) make use of Photovoice and (5) have to work with cancer survivors. As already stated before, the first step of identification resulted in a data base consisting of 56 articles.

The following step, according to the PRISMA-P framework, is called screening. During the screening process the inclusion criteria were successively applied. From this point, the process is depicted graphically in Figure 2. First, all duplicates were removed. After that, 29 articles remained. Subsequently, the titles and abstracts of these articles were screened according to the inclusion criteria mentioned before. Accordingly, 14 articles were included in the full-text screening, the third step of the framework. 15 articles were excluded because they addressed the wrong population. Finally, in the last step of the framework, 8 articles were included for the data extraction. Two additional articles give extensive reflections of a study already included. That is why, these adding information will be included into the data extraction. The four remaining articles were excluded because full-text screening revealed that they addressed the wrong population as well.

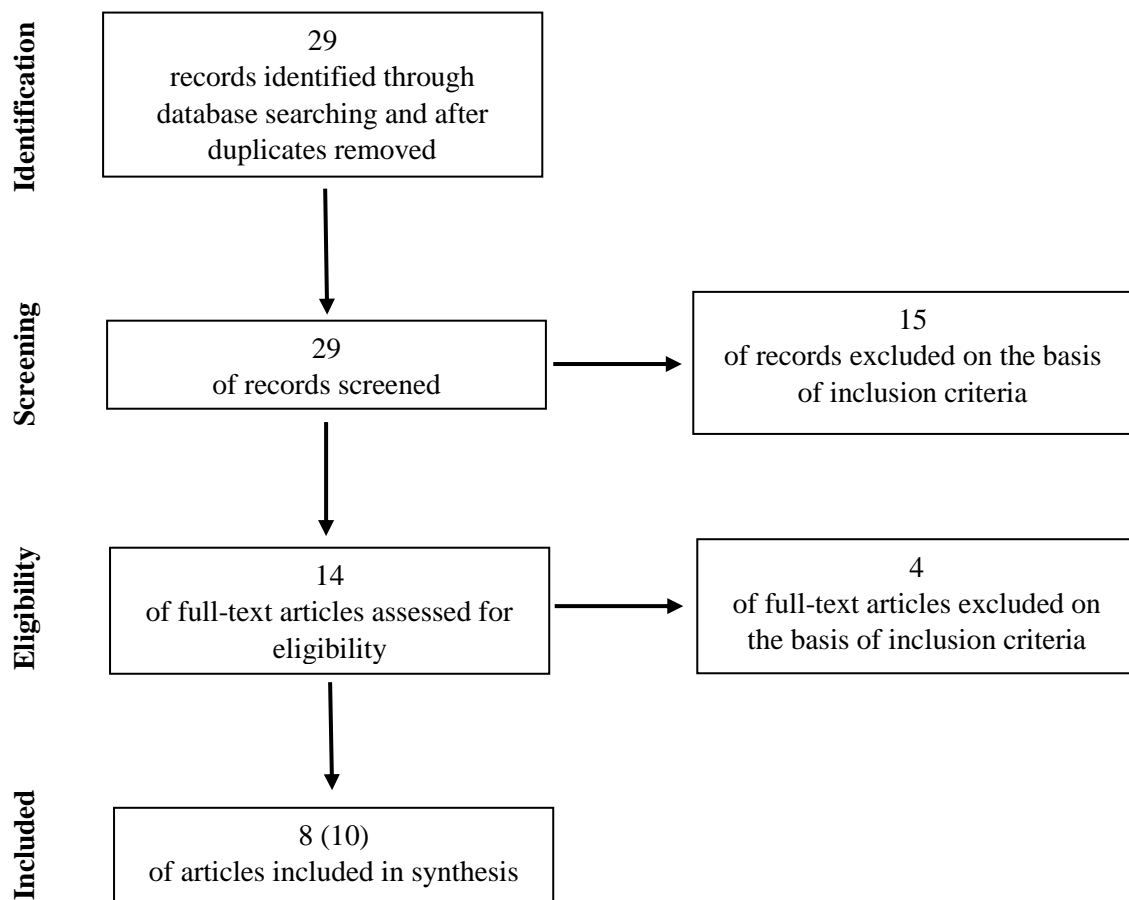


Figure 2. PRIMA-P selection process.

2.3 Categories for the data extraction

For the purpose of finding answers to the research question of this paper, six criteria were formulated, which will be defined in detail in the next paragraphs. These served as a means for systematically extracting the relevant data from the relevant articles and also for purposes of comparison. Moreover, the criteria provide answers and refer to the six sub questions.

2.3.1 Participants

Within this category, the inclusion criteria for the participants of each study were presented. Through means of open coding, ten categories concerning the inclusion criteria of the studies have been found: gender, age, ethnicity, first language, cancer type, location, status of treatment, timing of diagnosis, motivation to take and share photos and employment. This category showed which participants were addressed in the studies and therefore provided answers for the first sub question.

2.3.2 Procedure

Here, the procedure of data collection using Photovoice was explained. Information were extracted on the number and content of sessions and if they are individually or in a group-context, how many photographs were taken, which methods were used for the purpose of facilitating the reflection, training elements and the time interval in between the sessions. Basically, all relevant activities concerning the particular Photovoice process were described. These information addressed the second sub question.

2.3.3 Data analysis

In this category, the process of the data analysis of each study were presented. Furthermore, the techniques and programmes which were used were named and explained. So, this category involves technical aspects, such as the data management programme used, as well as analytical aspects, such as the qualitative method of analysis or if the photographs are the main content of analysis. Moreover, it was explained, how and to what extent the participants are involved during that process. This category gave insights referring to the third sub question.

2.3.4 Results

For each study, the main results were stated. Through means of an open qualitative coding of the results of the studies, seven categories of results were found: needs of cancer survivors, coping strategies and motivators, challenges, decision making processes, differences within group, cultural aspects and planning of future. These categories were used for the purpose of comparison. Moreover, they provided answers to the fourth sub question.

2.3.5 Scope

Here, the effects of the study's findings were named. Photovoice is thought to bring about positive societal and political change by different outreach activities, such as public exhibitions of lectures. It was addressed if and which extensive effects were achieved. This findings referred to the fifth sub question.

2.3.6 Reflection

Within this category, reflections about Photovoice as a method were displayed. These included positive as well as negative criticism. Both, the participants' and the authors' reflections were named. Furthermore, the findings from the additional articles included into the data extraction were mentioned here. This gave insights into the experiences of the ones who worked with Photovoice themselves and their praise and suggested improvements. These information gave answers to the sixth sub question.

3. Results

Before the results of the data extraction will be presented, the articles which are involved will be presented in the following table (Table 1). For reasons of clarity and comprehensibility, every article will be provided with a code. In the literature section, the articles included in the data extraction were marked.

Table 1. *Code scheme for the literature included in the data extraction.*

| CODE | AUTHORS | YEAR | TITLE |
|-------------|--|-------------|---|
| A1 | López, E. D. S., Eng, E., Randall-David, E. & Robinson, N. | 2005 | Quality-of-life concerns of African American breast cancer survivors within rural North Carolina: blending the techniques of Photovoice and Grounded Theory |
| A2 | Morrison, T. L. & Thomas, R. L. | 2015 | Cancer survivors' concealment or disclosure of diagnosis: implications for return to work |
| A3 | Morrison, T. L. & Thomas, R. L. | 2015 | Comparing men's and women's experiences of work after cancer: a Photovoice study |
| A4 | Morrison, T. L. & Thomas, R. L. | 2014 | Survivors' experiences of return to work following cancer: a Photovoice study |
| A5 | Mosavel, M. & Sanders, K. D. | 2010 | Photovoice: a needs assessment of African American cancer survivors |
| A6 | Poudrier, J. & MacLean, R. T. | 2008 | 'We've fallen into the cracks': Aboriginal women's experiences with breast cancer through Photovoice |
| A6 | Brooks, C. M. & Poudrier, J. | 2014 | Anti-oppressive visual methodologies: Critical appraisal of cross-cultural research design |
| A6 | Brooks, C. M. | 2009 | Aboriginal women's vision of breast cancer survivorship: intersections of race(ism)/ class/ gender and "...diversity as we define it" |
| A7 | Yi, J., Kim, M. A. & An, S. | 2015 | The experiences of Korean young adult survivors of childhood cancer: a Photovoice study |
| A8 | Yi, J. & Zebrack, B. | 2010 | Self-portraits of families with young adults cancer survivors: using Photovoice |

When looking at the articles which were involved for the main data extraction, it is obvious that all articles are rather recent. The oldest article was published in 2005. Even three of them are from the last year. That shows that the use of Photovoice with cancer survivors is a current and innovative issue.

Moreover, it can be recognised that three, respectively two articles are written by the same authors. Again, that portends that this topic is an especially new one. It seems like not many researchers have already focussed on this issue.

Another obvious finding is that the included studies were published in North America (USA and Canada) and Asia (Korea). No studies from Europe, South America, Africa or Australia have been included.

Finally, when referring to the themes addressed by the studies, one finds three different domains. Two studies focus on the needs and quality of life of the group, three address the return to work life and three simply investigate the experience of having had cancer.

Table 3. *Results of the main data-extraction.*

| CODE | PARTICIPANTS | PROCEDURE | DATA ANALYSIS | RESULTS | SCOPE |
|-------------|--|--|--|--|--|
| A1 | African American breast cancer survivors in rural North Carolina, who have completed their initial treatment, are willing to take photos about their survivorship and to share them in a small group of survivors. | <p>One information session and five photo discussion sessions. One month between sessions.</p> <p>Information session: general information, relationship development, camera training, participants develop photo assignments for next session themselves.</p> <p>Photo discussion sessions: audiotaped, reviewing and discussing themes from the previous grounded theory analysis, show-and-tell-activity, participants choose one or two photos to discuss in detail using SHOWED, summary and decision about the next assignment by participants themselves.</p> <p>After five sessions participants decided that data saturation had been achieved.</p> | <p>Audiotapes were reviewed and notes about body language etc. were inserted. Audiotapes were transcribed verbatim.</p> <p>Grounded theory analysis: search categories, development of framework by finding conceptual relationships among categories.</p> <p>Involvement of participants during grounded theory analysis: framework was discussed and altered until satisfaction.</p> | <p>Needs of cancer survivors</p> <p>Challenges</p> <p>Coping strategies and motivators</p> | <p>Two task forces were started: Development of workshops to educate religious leaders about breast cancer and of peer support networks for families of survivors.</p> <p>Influential people attending the final forum showed willingness to forge relationships with the survivors.</p> |

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| | | | ATLAS/ ti 4.2 was used. | | |
| A2 | <p>People, who were working at the time of their cancer diagnosis, are 18 years of age or older, talk English fluently and are interested in taking photos about their experiences and participate in two audio recorded interviews.</p> | <p>Two individual interviews which were audiotaped. One month between sessions.</p> <p>First interview: general information, demographic survey, participant’s experience of having had cancer, transient and ongoing health implications, worker role and social considerations related to work return and maintenance, camera training, instruction to take approximately ten photos that represent of their experience of work return or maintenance following cancer.</p> <p>Second interview: photos were presented and participant explained and discussed the intended meaning using SHOWED.</p> | <p>Audiotapes were transcribed verbatim.</p> <p>Data were coded based on the interviews and photographs. Researchers stayed as close as possible at the participants’ own words and intended meanings.</p> <p>Finally, a decision tree referring to concealment or disclosure of diagnosis was created.</p> <p>NVivo 10 was used.</p> | <p>Decision making processes</p> | <p>Based on these findings, influential people will be interviewed for to explore their management of work return and maintenance of cancer survivors.</p> <p>Intervention trials will be carried out.</p> |
| A3 | <p>People, who were working at the time of their</p> | <p>Two individual interviews which were audiotaped. One month between sessions.</p> | <p>Audiotapes were transcribed verbatim and</p> | <p>Decision making processes</p> | <p>Idea of client-centred rehabilitation programmes which</p> |

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| | <p>cancer diagnosis, are at least 18 years of age, talk English fluently and are interested in taking photos about their experiences and participate in two audio recorded interviews.</p> | <p>First interview: general information, demographic survey, recent health, worker role, social consideration with reference to work return and maintenance after cancer, camera training, instruction to take approximately ten photos that inform about participants' work return and maintenance after cancer.</p> <p>Second interview: participants showed and codified their photos using SHOWED.</p> | <p>the concerning photos were inserted.</p> <p>Key phrases of the interviews were highlighted and were coded into categories representing similar ideas.</p> <p>NVivo 10 was used.</p> | <p>Differences within group</p> | <p>consider the gender differences found in this study.</p> |
| A4 | <p>People, who were working at the time of their cancer diagnosis, are 18 years of age or older, talk English fluently and are interested in taking photos about their</p> | <p>Two individual interviews which were audiotaped. One month between sessions.</p> <p>First interview: general information, demographic survey, participant's experience of having had cancer, transient and ongoing health implications, worker role and social considerations related to work return and maintenance, camera training, instruction to take approximately ten photos that</p> | <p>Audiotapes were transcribed verbatim and photos were inserted.</p> <p>Key phrases of the interviews were highlighted and were coded into categories representing similar ideas.</p> | <p>Decision making processes</p> <p>Coping strategies and motivators</p> | <p>Photos and participants' words are base for the development of vignettes for physicians and industry professionals</p> |

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|-----------|---|--|---|---------------------------|---|
| | experiences and participate in two audio recorded interviews. | represent of their experience of work return or maintenance following cancer. Second interview: photos were presented and participant explained and discussed the intended meaning using SHOWED. | NVivo 10 was used. | | |
| A5 | African American cancer patients or who have cared for cancer patients from a north-eastern urban city. | One information session, two planning sessions and two discussion sessions which were audiotaped. All sessions were held in small group-context. Information session: general information. First planning session: camera training, identification of major categories, instruction to take at least ten photos. Second planning session: discussion of the challenges while taking the first photos, new instruction of taking photos. | Audiotapes were transcribed verbatim. Three coders reviewed the transcripts to further distil the categories. Results of each coder were discussed during three meetings. | Needs of cancer survivors | Public photo exhibition with health and service providers, community stakeholders, cancer survivors and caregivers which resulted into a significant news coverage. |

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| | | Two discussion session: photos were presented and discussed, participants were ask to discuss photos with use of the categories from the first meeting. | | | |
| A6 | Aboriginal women in the province of Saskatchewan, who are 19 years of age or older and have completed active breast cancer treatment at least six months ago. | <p>Two sessions which were audiotaped and a one-day event at the end of the study.</p> <p>First session: participants shared their stories of having had cancer, instruction to 12-15 photos of what having had cancer meant to them.</p> <p>Second meeting: photos were described and discussed, several especially meaningful photos were selected and discussed in detail.</p> <p>One-day event: photos and stories were shared, key stakeholders were invited to a workshop to discuss about forming new networks.</p> | <p>Audiotapes were transcribed verbatim.</p> <p>Especially meaningful photos chosen by the participants served as base for the data analysis.</p> <p>Three researcher coded the data independently.</p> <p>Team discussions about the transcripts and photos in which a theoretical framework provided filters for interpretation: feminist epistemology with a focus on visibility and power,</p> | <p>Needs of cancer survivors</p> <p>Challenges</p> <p>Cultural aspects</p> | Facilitated a connection between the participants and key stakeholder groups. |

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| | | | writings on the use of visual methods in sociology. | | |
| A7 | Young adult childhood cancer survivors aged between 19 and 29 years and diagnosed from birth to 19 years of age, who are interested in sharing their experiences and advocating for their community of cancer survivors. The participants were excluded if they | One individual interview, one initial group session, four regular group sessions and one final meeting. The group sessions were audiotaped. One week between sessions. Individual interview: demographic data and cancer related information. Initial group session: general information, discussion on cancer survivorship, decision on topic for the following week and instruction to take 10-15 photos about it. Four regular group sessions: review of the photos, participants selected several key photos and discussed them using co-PI, decision on topic for the following week and instruction to take 10-15 photos about it. | Audiotapes were transcribed verbatim and field notes concerning group interaction and non-verbal expressions were taken. Weekly theme discussions about emerging themes were carried out. The major themes of the study findings are the weekly themes selected by participants themselves. Transcripts were coded to find sub-themes by | Needs of cancer survivors Challenges Coping strategies and motivators Planning of future | Presentation at the 7th International Confederation of Childhood Cancer Parent Organisations (ICCCPO) Asia Meeting for advocating and promoting awareness for cancer survivors. |

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|-----------|--|--|--|--|--|
| | were currently in treatment. | Final meeting: final review by the participants. | repeatedly reading the transcript. | | |
| | | | ATLAS/ ti 7 was used. | | |
| A8 | Young adult cancer survivors aged between 18 and 39 who were diagnosed and treated before age of 21 and were off treatment for more than 5 years and their family members who were addressed via the organisation padres contra el cancer. | One initial group session and six regular sessions which were audiotaped. Two weeks between sessions. Initial group session: general information, camera training, instruction to take a self-chosen number of photos that capture the impact of cancer on the family, topics for the following sessions were generated by the participants themselves through group discussions. Regular sessions: individual interview using an alteration of SHOWED for selecting the most relevant photos, group was divided into cancer survivors and family group, separate group discussions about the selected photos. | Audiotapes were transcribed verbatim. Themes of participants were used as organising framework. Analysis was carried for each group and each meeting separately. Search for sub-themes for each meeting and cluster units into categories. ATLAS/ ti was used. | Challenges Coping strategies and motivators | Two survivors presented their photos in front of the medical staff at a local children's hospital. |

3.1 Participants

When looking at the participants thematised within the articles, a great variability of groups within the group of cancer survivors can be found. Only three of the studies worked with cancer survivors in general (A2, A3 and A4). Two others specifically addressed African American cancer survivors (A1 and A5). Again two concentrated on survivors of childhood cancer (A7) of which one also included the families of the survivors (A8). Concerning the latter it is also important to mention that this study primarily worked with Latin American participants. This was not required explicitly, but resulted from the frame of recruitment (Padres contra el cancer). The remaining study focussed on Aboriginal cancer survivors (A6).

As already mentioned before, ten categories concerning inclusion criteria have been found. The quantity of inclusion criteria per study ranges from two (A5) to seven (A6), with an average of 4.1.

Most studies recruited their participants depending on their motivation to display and discuss their experiences visually (62.5%; A1, A2, A3, A4 and A7). Another common criterion was age. Six studies (75%) explicitly only recruited participants aged at least 18 (A2, A3, A4 and A8), respectively 19 (A6 and A7). Two of them also set an age limit (A7 and A8). Only one study explicitly included only women (A6). Another study included equivalent amounts of both genders for means of comparison (A3). Three studies explicitly required good abilities in English (37.5%; A2, A3 and A4). These studies all focussed on factors concerning work reintegration. That is why, these studies also required an employment. Two studies focussed on a specific cancer type, which was in both cases breast cancer (25%; A1 and A6). Three studies addresses a specific ethnical group (37.5%). Two of them worked with African Americans (A1 and A5) and the other focussed on Aboriginals (A6). Three other studies particularly approached cancer survivors from special locations (37.5%). A1 worked with participants from rural North Carolina, A5 with participants from a north-eastern urban city and A6 with participants from the province of Saskatchewan. Four studies provided specific limits of how long the initial treatment has to be ago (50%, A1, A6, A7 and A8). Two studies addressed the experiences of young adult cancer survivors (25%; A7 and A8). That is why these studies set a limit with reference to the time of the diagnosis.

3.2 Procedure

It was found that most studies included a group-aspect. Most of the programmes consisted of one initial meeting including a camera training and several photo-discussion sessions which made use of structuring methods.

50% of the studies exclusively worked within a group-setting (A1, A5, A6 and A8). One other study started with one individual session and continued with group sessions (12.5%; A7). Only 37.5% did not include any group aspects (A2, A3 and A4).

The quantity of session ranged from two (A2, A3 and A4) to seven (A7 and A8) sessions, with an average of 4.25. Most studies consisted of one initial information session and following photo-discussion sessions (62.5%, A1, A2, A3, A4 and A8). Two studies included additional planning sessions (25%, A5 and A7). Two other studies had an adding event at the end of the programme (25%; A6 and A7). 75% of studies included a camera training. Only study A6 and A7 did not. In 50% of the studies, the time interval between the sessions took one month (A1, A2, A3 and A4). Study A7 and A8, only took a time interval of one, respectively 2 weeks. Study A5 and A6 made no statement concerning this topic.

The number of photos the participants were asked to take, ranged from six (A1) to approximately 15 (A6 and A7). The average maximum number of photos is 10.9. Only study A8 set no limit at all.

During the discussion sessions, all studies made use of a method that structures the discussion. A5 asked the participants to sort the photos into categories which had been created before by the participants themselves. All of the other studies made use of the acronym SHOWED¹ (50%; A1, A2, A3 and A4) or of an alteration of it (37.5%, A6, A7 and A8).

Finally, it is important to mention that A2, A3 and A4 made use of exactly the same procedures. They all were written by the same authors (Morrison and Thomas) and thematise the same topic (return to work after cancer).

3.3 Data analysis

Most studies qualitatively analysed the transcripts of the interviews. During that process, most studies actively involved their participants.

All studies made use of a qualitative analysis by coding the information into various categories. 50% made use of open coding, without pre-established categories (A1, A2, A3 and A4). The other half used categories which already had been developed (A5, A6, A7 and A8). In all cases these categories were acquired by the participants. In most studies, the transcripts from the interviews or discussions were the focus of the data analysis (75%; A1, A3, A4, A5, A7 and A8). Only in study A2 and A6, a combination of the transcripts and the photos was used.

Only three studies did not actively involve the participants during the data analysis (A2, A3 and A4). 62.5% of the studies chose to do so (A1, A5, A6, A7 and A8). Four of these studies made use of categories selected by the participants (A5, A6, A7 and A8). Two of them

¹A discussion method introduced by Wang (1999). The letters of the acronym refer to the following questions: What do you **S**ee here? What is really **H**appening here? How does this relate to **O**ur lives? **W**hy does this situation, concern, or strength **E**xist? What can we **D**o about it?

let the participants review the results of the data analysis and altered them until satisfaction (A1 and A7). A1 even let the participants decide when the point of data saturation was achieved.

Two technical programmes were used: ATLAS/ti² and NVivo³. 37.5% of the studies made use of ATLAS/ti (A1, A7 and A8). Also 37.5% made use of NVivo (A2, A3 and A4). Two studies did not publish their data management programme (A5 and A6).

3.4 Results

As already mentioned before, seven categories of results have been found. In almost every study, several categories have been found. The average amount of categories was 2.25. Most studies addressed the needs of cancer survivors and which challenges have been overcome in which ways.

50% of the studies found out what are the needs of cancer survivors (A1, A5, A6 and A7). Also 50% addressed the challenges the participants had to overcome (A1, A6, A7 and A8). Again 50% investigated what were the coping strategies and motivators during that process (A1, A4, A7 and A8). 37.5% of the studies had findings concerning decision making (A2, A3 and A4). All of those three studies addressed work reintegration following cancer and were published by the same authors (Morrison and Thomas). There are three more categories of results which all were found once. A3 found that there are gender-specific differences in coping strategies. A6 found that cultural aspects have influence on the recovery after cancer. A7 investigated the future planning of their participants.

3.5 Scope

Basically, it was found that all studies achieved at least one extensive positive change or outreach activity. It is the case that in most studies one such change was achieved (75%; A3, A4, A5, A6, A7 and A8). The two remaining studies even led to two changes (A1 and A2).

Five studies managed to reach key stakeholders (62.5%; A1, A5, A6, A7 and A8). These include health and service providers and stakeholder with political and societal influence. Four studies lead to a development of actions, such as workshops, support networks, intervention trials and specific rehabilitation programmes (50%, A1, A2, A3 and A4). One study (A2) also started a new research with key stakeholders, based on the previous findings with cancer survivors.

² A computer programme for qualitative research developed by the Technical University of Berlin, Germany (Muhr, 1991).

³ A software that supports qualitative and mixed methods research developed by the QSR-international Company (QSR, 2016).

3.6 Reflection

Nearly all studies provided reflections about the Photovoice method. Only study A2 and A3 did not. The most comprehensive reflection was done by A6 because the articles by Brooks (2009) and Brooks and Poudrier (2014) exclusively addressed this topic. In all reflections, hardly negative criticism has been found. Another important aspect to mention beforehand is that most articles provide reflections from the authors as well as from the participants (66.7%; A4, A6, A7 and A8). Study A1 and A5 only give reflections from the participants, respectively from the authors.

Basically, in nearly all studies it is stated in a more or less explicit manner that the research programme was a joyful and precious experience for the participants. The participants of study A1 reported that the method of Photovoice was good for investigating a socially sensitive topic, such as the experience of having had cancer. Moreover, they stated that they felt like research partners because they were involved in the decisions concerning the study. Another positive aspect that was found in study A1 as well as A8 was that the photos facilitated discussion. They brought in themes that normally would not have come to the participant's minds and by that served as a base for communication. Concerning the research process, the participants of study A7 and A8 reported that they felt positively impacted by the photographing itself and the group discussions. Both aspects provided new insights, reflection and intensive exchange of affected people. The comprehensive analysis of A6 additionally found that the research process enhanced relationships within the own family as well as among the participants. That, because of the new base for communication in the form of the photographs. Moreover, the research programme was an unprecedented platform for the cancer survivors. Normally, it would have been difficult to meet and to discuss with fellow sufferers.

In summary, it was found that participants felt that the research process was a precious and enriching experience. But it has to be kept in mind that it is also very intensive and challenging and that there also have been found suggestions for improvement and aspects to take care for. The participants of A4 and A6 reported that it was difficult to capture specific experiences in images and that they were primarily uncertain what was expected of them. Moreover, they were unable to take certain pictures, they wish they could. These included pictures of specific seasons and of some sacred rituals which are not allowed to be photographed. But these aspects cannot be categorised as negative criticism because the participants felt challenged by it and started to think creatively. By that, they managed to take photos which depict their experiences in a symbolical manner. It supported reflection about their ideas. That is why, it takes time to take the pictures. The participants of A6 reported that one has to be in the right mood for it and found that it takes even longer to picture personally

difficult themes. Furthermore, did these participants also reflect that they were scared to be misinterpreted afterwards. That could compound stereotyping, instead of improving it. This aspect was overcome by close cooperation between researchers and participants.

Also the authors offered a lot of positive reflections. Basically, Photovoice is seen as a powerful, empathetic and extensive tool with therapeutic potential. Concerning the Photovoice research methodology, it was found that it is an empathetic approach that focusses on the experiences of the individual and appreciates them. Here, the researchers act as learners and not as experts. The participants are taken seriously, without bias or prejudice (A4 and A6). That is why, Photovoice is a tool for creating powerful visuals which depict the experiences of normally overheard voices (A5, A6 and A7). These visuals contribute to reach key stakeholders as well as the general society by informing, educating and calling attention (A4, A5 and A6). With reference to the participants, the authors reflect that the Photovoice-process serves as a reflection tool for the picture taker (A5, A6, A7 and A8). The pictures themselves act as a facilitator for discussion and action (A6 and A8). All these aspects portend the potential of Photovoice as an intervention programme (A7 and A8).

Basically, the authors reflect that Photovoice is an effective tool for creating powerful visuals that has therapeutic effect for the participants. But it is important to include them as much as possible in all steps of the research process. But there are also aspects to take care of that were reflected by the authors of study A6. All these aspect contain that it is important to involve the participants during the whole research process. First, the authors suggest that it is important to facilitate as many group meetings as possible for the purpose of consultation. Moreover, it is important to leave many decisions to the participants. These aspects are justified by the fact that minority groups are often mistrusting because they have made bad experiences relating to prejudice, inequity and incomprehension. For to meet the participants' fears, it is important to actively work against further othering and stereotyping. One suggestion is to apply a culturally safe lens which links the results to the historical background of the minority group, while appreciating the individuality of each member. That, by employing a feedback loop in all stages of the research process which includes the participants. According to A6, these aspects would make Photovoice an anti-oppressive visual method.

4. Discussion

In the following part, the six sub-questions of the present systematic review will be discussed subsequently and implication for further research will be addressed. Moreover, the strengths as well as the limitations of the present study will be named and the PRISMA-P framework will be criticised.

Concerning the first sub-question, a great variability of participants has been found. That shows that within the minority group of cancer survivors, more even smaller groups can be found. A member of a minority group such as an African American or an Aborigine experiences prejudice and discrimination anyway (Andersen & Taylor, 2008). When these people become cancer survivors, it makes them even more special and the problems do compound. Moreover, it has to be kept in mind that these cultural differences do also imply special needs of these minority groups. That is why, further research about the use of Photovoice with cancer survivors as well as with additional minority groups is recommended.

The second sub-question concerns the defining features of the Photovoice procedure. Here it was found that most studies primarily worked within a groups-context and consisted of one initial informative meeting and several photo-discussion sessions which made use of structuring methods. When comparing these findings to the traditional use of Photovoice as introduced by the cofounder of Photovoice, C. C. Wang (1999), it can be found that nearly all studies worked rather classically. But there were also some alterations. Even if all studies included an introductory session, two of the studies included no camera training or at least it was not mentioned. But here, it seems questionable if this kind of training is still necessary in our present technologized world. Another important finding was that there were big differences in time to complete the assignments. There was a range from one week to one month between the sessions. Within the reflections, it was found that the participants stated that taking pictures takes a lot of time. Moreover, they reflected that more emotional themes take even longer. That is why, it can be concluded that the time which is required for an assignment is extremely individual and depends on the participants as well as on the topic of the assignment. A possible solution could be to only give a benchmark concerning the time and to adjust it individually. That would require to keep in intensive contact with the participants during the whole process. Another aspect found during the present review is that all studies systematically discussed the participants' pictures. Seven of them even made use of SHOWED as introduced by Wang (1999) or an alteration of. So, concerning this topic, all studies worked absolutely according to the traditional use of Photovoice. Moreover, it is important to mention that the participants especially praised this discussion aspect of the process as helpful. So, it actually seems to be an important feature of the Photovoice method. Finally, it was found that most of the studies included in the present review included a group aspect. Only three did not. Here, it is important to mention that these studies were all composed by the same authors and belonged to the same research programme. Moreover, it was found that these studies also did not provide reflection of their participants. That could indicate less satisfaction of the participants. This does also confirm the findings of Catalani and Minkler (2010). They found that the use of group discussions is a defining feature of the Photovoice process and that this community aspect is one reason for higher quality of

participation. Another aspect to be mentioned here, is that Lorenz and Kolb (2009) designated the use of a groups-context as a defining feature of Photovoice which differentiates it from other participatory visual methods, such as photo-elicitation. That is why, it seems questionable if the three articles published by Morrison and Thomas can be categorised as Photovoice studies. Rather, it seems like they should be categorised as photo-elicitation or participatory visual method in general.

With reference to the third sub question it was found that most studies qualitatively analysed the transcripts of the interviews and actively involved their participants during the whole process. According to Catalani and Minkler (2010) the Photovoice process is defined by the use of several data sources. In the present review, these findings were replicated partially. All studies included that the participants have to describe and explain their photos. So, it can be confirmed that several data-sources are used within the Photovoice process. But it is important to mention that only two studies addressed more than one source during the analysis. The remaining six only analysed the transcripts of the discussion. In the present review, another important feature concerning the data analysis of Photovoice has been found. Nearly all studies actively involved their participants during the research process. That means that the researchers let many decisions to the participants or at least let them review the results. Only the three studies conducted by Morrison and Thomas did not include such aspects. That confirms the impression that these studies do significantly differ from the others. Probably, this could be caused by the fact that these three studies belong to a broader research programme and basically display a rather explorative character.

Referring to the results of the included studies, seven categories have been found. The categories which were found most often were the needs of the cancer survivors, the challenges they had to overcome and the coping strategies and motivators they made use of. These findings conform the main outcomes of Photovoice as introduced by Catalani and Minkler (2010). They found that one common outcome of this method is an enhanced understanding of the minority group's needs and capabilities. This also refers to one of Photovoice's goals which says that it is meant to give minority groups the opportunity to present their own community and to reflect about it (Wang & Burris, 1997).

When looking at the scope of those results, it was found that all studies lead to at least one extensive positive change or outreach activity, even if these were not included in the research programme. Many of these outreaching activities were carried out with the own initiative of the participants. That again supports the idea of Catalani and Minkler (2010) that a main outcome of the Photovoice process is the creation of action and advocacy for the own minority group. Another defining outcome, according to them, is the enhancement of understanding within society for the minority group. This also refers to the idea of Wang and Burris (1997) that Photovoice is meant to reach politics and should facilitate critical dialogue

with outgroup-members. Again, these goals were achieved by the own initiative of the participants. Here, it is important to address which aspects of the Photovoice process are motivating the participants that way. In the present study, own initiative of the participants was only found in study which included a group aspect. Perhaps this aspect strengthens the affected people and motivates them. This hypothesis should be investigated in further studies.

Concerning the last sub question of this paper, many positive reflections have been found. Basically, no negative criticism was mentioned, but only aspects to take care for when using Photovoice. When looking at the reflections of the participants, it was remarkable that the exchange with fellow sufferers lead to an increase in positive reflections. That is why, it can be concluded that it seems important to at least involve discussions with other group-members. Often, the contact with outgroup-members, including key-stakeholders, follows by the own initiative of the participants. The exchange with fellow sufferers did also lead to an impression of individual empowerment among the participants. This does also confirm the findings of Catalani and Minkler (2010) who argued that individual empowerment is a common outcome of the Photovoice process. Many participants reflected that the process positively impacted them and was a precious experience. Some authors even extended these findings by reflecting that the Photovoice method has therapeutic potential and could be used as an intervention. Another defining feature of the Photovoice method which was found within the reflections was that the participants felt taken seriously and freed from existing biases and prejudices. This was enabled because the researchers acted as learners and involved the participants during the process. Concerning these findings, it is recommended that further research of the promising approach of a Photovoice-intervention should be done. Moreover, it should be addressed which aspects of the programme do motivate the participants. In doing so, the working mechanisms of Photovoice would be clarified. Finally, research should investigate the application of a culturally safe lens as introduced by Brooks and Poudrier (2014). This could enhance the trust of the participants in the programme and prevent the persistence of existing prejudices.

As already has become noticeable before, this systematic review also has some limitations. First of all, this review only had a very little data pool. But this also shows that the use of Photovoice within the recovery of cancer survivors is a very recent topic. The inclusion criterion of cancer survivors significantly minimised the data pool. But the comparison of studies addressing the needs of cancer survivors, those of currently affected patients and prevention programmes would have been difficult and hardly expressive. Another limitation which is resulting from the same given conditions is that the review included many studies from the same authors. This limits the comparability of the studies because authors often make use of the same research structure in different studies. That relativizes the validity of the present findings and emphasises the importance of further

research. Finally, only studies from three different continents were included. No studies from Europe, South America, Africa or Australia have been found. This again portends to the same conditions. A possible solution for this issue could have been to include more databases. This could have provided more articles for the present review. Another idea was to widen the methodological construct, e.g. by using the term participatory visual method. But this approach did not lead to an enlargement of the data pool. Moreover, this would object the argumentation why it was chosen to address the method of Photovoice specifically. Another limitation of the present review were the included articles A2, A3 and A4. These studies were all conducted by the same authors and made use of the same procedures. This included that they all did not made use of group aspects and did not include any outreach activities. That is why, these studies do obviously conform the method of photo elicitation because the defining aspects of Photovoice are mainly not included. That limits the comparability to the other studies and reveals little insights into the Photovoice method. Finally, it seems questionable if the definition of a minority group does really fit to cancer survivors. That, because cancer survivors are a quite big group and the present studies do primarily address cancer survivors which are member of another smaller minority group.

But there are also many strong points about this present review. The most important are the following ones. First, the inclusion criteria which were chosen were sufficient. Even if the data pool was small, alternative inclusion criteria would not have extended it significantly. Second, the adding of additional reflective articles gave more extensive insights into the studies and the method of Photovoice. Finally, the comprehensive criteria for the data extraction facilitated the extraction of the relevant information from the articles and helped to find adequate answers to the sub questions.

With reference to the usability of the PRISMA-P framework (Moher et al., 2015), it can be said that it is a useful tool to systematically assess and compare studies. The distinct steps of the framework are helpful in organising a systematic review. It helps to work in a structured and comprehensive manner.

5. Conclusion

Finally, the following conclusions can be drawn. Concerning the first sub question it was found that within the minority group of cancer survivors, even smaller minority groups can be found. The problems within these sub-groups seem to compound. Moreover, it seems questionable if the definition of a minority group does really fit to cancer survivors.

With reference to the second sub question it can be said that the Photovoice procedure seems to be defined by the following structure: an initial informative meeting and several following group-discussion sessions during which a structuring method such as SHOWED is used.

Concerning the third sub question, it was found that the data are usually analysed through means of a qualitative analysis of the interview transcripts. Another defining aspect is that the participants are actively involved in decisions during the whole process. The participants are treated as research-partners. This is a distinctive feature of the Photovoice method.

When looking at the results of the studies included in this review, seven categories have been found. The most common were the needs of cancer survivors, the challenges they had to overcome and the coping strategies and motivators they made use of.

With reference to the scope of these results, it was found that all studies lead to at least one positive outreach effect. This was often realised by the own initiative of the participants. Probably, this initiative was enhanced by the group aspect during the Photovoice process.

Finally, referring to the last sub question, many positive reflections of the authors as well as of the participants have been found. Moreover, no negative criticism was given, but only aspects to take care for when using Photovoice. One particularly important feature of the Photovoice method was the group aspect, especially the exchange with fellow sufferers. This seems to lead to increased positive reflections and individual empowerment of the participants. This indicates a possible therapeutic effect of Photovoice. Another important aspect was that the Photovoice method seems to free the participants from existing prejudices and biases concerning their minority group. That, because the participants act as research-partners and the researchers themselves as learners.

Basically, it can be said that the state of the art concerning the use of Photovoice in recovery research of cancer survivors is that it is a promising approach. The needs and experiences of the participants are investigated objectively and sensitively. Moreover, do the minority-group members even seem to benefit from the programme. That is why, further research concerning the use of Photovoice with cancer survivors is absolutely recommended. Especially, the therapeutic potential of this approach should be investigated. Or in words of participants of study A6:

“This was a great way to tell my story”

“This photo project was a wonderful, wonderful exercise”

“This project has changed my life”

6. References

Andersen, M. L. & Taylor, H. F. (2008). *Sociology: Understanding a diverse society*. Belmont, USA: Thomas Higher Education.

*Brooks, C. M. (2009). *Aboriginal women's vision of breast cancer survivorship: intersections of race(ism)/ class/ gender and "...diversity as we define it"*. (Unpublished doctoral dissertation). University of Saskatchewan, Canada.

*Brooks, C. M. & Poudrier, J. (2014). Anti-oppressive visual methodologies: Critical appraisal of cross-cultural research design. *Qualitative Sociology Review, Volume 10 (4)*, 33-51.

Catalani, C. & Minkler, M. (2010). Photovoice: A Review of the Literature in Health and Public Health. *Health Education & Behaviour, Volume 37 (3)*, 424-451.
DOI: 10.1177/1090198109342084

Elsevier (2016). Retrieved at 05.03.2016, from
<https://www.elsevier.com/solutions/scopus/content>

Hahn, E. E., Hays, R. D., Kahn, K. L., Litwin, M. S. & Ganz, P. A. (2014). Post-traumatic stress symptoms in cancer survivors: relationship to the impact of cancer scale and other associated risk factors. *Psycho-Oncology, Volume 24*, 643-652. DOI: 10.1002/pon.3623

*López, E. D. S., Eng, E., Randall-David, E. & Robinson, N. (2005). Quality-of-life concerns of African American breast cancer survivors within rural North Carolina: Blending the techniques of Photovoice and grounded theory. *Qualitative Health Research, Volume 15 No. 1*, 99-115. DOI: 10.1177/1049732304270766

Lorenz, L. S. & Kolb, B. (2009). Involving the public through visual research methods. *Health Expectations, Volume 12*, 262-274.
DOI: 10.1111/j.1369-7625.2009.00560.x

Mehnert, A., de Boer, A. & Feuerstein, M. (2013). Employment Challenges for Cancer Survivors. *Cancer, Volume 119*, 2151-2159. DOI: 10.1002/cncr.28067

Moher, D., Shamsser, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., ...
PRISMA-P Group (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews 2015*, 4.1. DOI: 10.1186/2046-4053-4-1

*Morrison, T. L. & Thomas, R. L. (2015). Cancer survivors' concealment or disclosure of diagnosis: Implication for return to work. *Work, Volume 52*, 643-655. DOI: 0.3233/WOR-1521201

*Morrison, T. L. & Thomas, R. L. (2015). Comparing men's and women's experiences of work after cancer: a photovoice study. *Support Care Cancer, Volume 23*, 3015-3023. DOI: 10.1007/s00520-015-2670-4

*Morrison, T. L. & Thomas, R. L. (2014). Survivor's experiences of return to work following cancer: A photovoice study. *Canadian Journal of Occupational Therapy, Volume 81*, 163-172. DOI: 10.1177/0008417414534398

*Mosavel, M. & Sander, K. D. (2010). Photovoice: A needs assessment of African American cancer survivors. *Journal of Psychosocial Oncology, Volume 28*, 630-643. DOI: 10.1080/07347332.2010.516809

Muhr, T. (1991). ATLAS/ti – A prototype for the support of text interpretation. *Qualitative Sociology, Volume 14, Number 4*, 349-371

PhotoVoice (2016). Retrieved at 05.03.2016, from <https://photovoice.org/vision-and-mission/>

*Poudrier, J. & Thomas Mac-Lean, R. (2008). 'We've fallen into the cracks': Aboriginal women's experiences with breast cancer through Photovoice. *Nursing Inquiry, Volume 16*, 306-317.

QSR (2016). *What is NVivo?* Retrieved at 03.06.2016, from <http://www.qsrinternational.com/what-is-nvivo>

Statista (2016). *Am meisten gefürchtete Krankheiten nach Altersgruppen 2011*. Retrieved at 22.05.2016, from <http://de.statista.com/statistik/daten/studie/207797/umfrage/am-meisten-gefuechtete-krankheiten-nach-altersgruppen/>

Stein, K. D., Syrjala, K. L. & Andrykowski, M. A. (2008). Physical and Psychological Long-Term and Late Effects of Cancer. *Cancer Supplement, Volume 112*, 2577-2592. DOI: 10.1002/cncr.23448

Wang, C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health, Volume 8, Number 2*, 185-192

Wang, C & Burris, M. A. (1997). Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Education & Behaviour, Volume 24 (3)*, 369-387

Wang, C., Yi, W. K., Tao, Z. W. & Carovano, K. (1998). Photovoice as a participatory health promotion strategy. *Health Promotion international, Volume 13 (1)*, 75-86

World Health Organisation (2013). *10 facts about cancer*. Retrieved at 26.03.2016, from <http://www.who.int/features/factfiles/cancer/en/>

World Health Organisation (2015). *Cancer. Fact sheet N°297*. Retrieved at 26.03.2016, from <http://www.who.int/mediacentre/factsheets/fs297/en/>

World Health Organisation (2016). *GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide 2012*. Retrieved at 26.03.2016, from http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx

*Yi, J., Kim, M. A. & An, S. (2015). The experiences of Korean young adult survivors of childhood cancer: A Photovoice study. *Qualitative Health Research*. DOI: 10.1177/1049732315599374

*Yi, J. & Zebrack, B. (2010). Self-portraits of families with young adult cancer survivors: using Photovoice. *Journal of Psychosocial Oncology, Volume 28*, 219-243. DOI: 10.1080/07347331003678329