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'I was in control of it from the start': A qualitative study of men’s experiences of positive adjustment following a heart attack.

Key words: Myocardial infarction, acute illness, coping, qualitative methods, illness perception

Abstract
A qualitative design was used to explore the experience of positive adjustment following a heart attack. Ten men attending a cardiac rehabilitation program completed in-depth semi-structured interviews. An overarching theme: ‘I was in control of it from the start’ emerged with six subthemes, relating to intrapersonal and interpersonal factors and processes. The subthemes reflected the importance of identifying controllable versus non-controllable factors and employing adaptive coping strategies.

Introduction
Research regarding one’s appraisal of having a heart attack has shown that individuals report different effects of and adjustments to the event. There is a body of research which has highlighted the potential for negative experiences of adjustment post-heart attack, for instance, Jensen and Petersson (2003) and Hutton and Perkins (2008) identified that people experienced a sense of shock and on-going uncertainty regarding their treatment and health post-heart attack. Additionally, Astin, Horrocks, and Closs (2014) reported that
individuals had an altered sense of self and experienced a feeling of loss, due to health changes after a heart attack.

The differential experiences of males and females who have had a heart attack was shown by Medved and Brockmeier (2011), who found that resuming gendered identities was highlighted, as men used ‘mechanical’ metaphors and little explicit emotion talk regarding their experiences, conversely female participants typically used more negative emotion language and highlighted the importance of supporting their families throughout their recovery.

In contrast to research exploring negative adjustment post-heart attack, there is also a growing body of qualitative health psychology research to identify experiences of positive adjustment to living with health conditions, including having a heart attack. For instance, Pinquart, Frohlich, and Silbereisen (2007) found that greater perceived gains following cancer treatment predicted positive affect and promoted psychological well-being. Additionally, patients with spinal cord injury identified that realistic goal setting, social comparisons and acceptance were all key factors associated with positive adjustment (Dibb et al., 2014).

Positive growth following a heart attack has been highlighted in a number of studies. For instance, Hildingh, Fridlund and Lidell (2006) reported participants’ reoriented their lives following a heart attack to move towards new values and develop motivation to make positive changes and found
balance within themselves and their relationships. Also, Hutton and Perkins (2008) identified that participants experienced positive growth following their heart attack, by feeling fitter post-cardiac rehabilitation and using social comparisons to consider their own cardiac condition to be mild relative to other cardiac patients.

The processes involved in positive adjustment to health conditions has been researched in a number of areas. Firstly, Egan et al. (2011) identified that participants used certain adaptive coping techniques, including: developing personal growth; utilising social relationships; and using cognitive reframing; all of which helped to boost participants’ self-esteem and sense of well-being. Cardiovascular research also highlights the importance of person centered care through individualised psychosocial support and creating a sense of empowerment for the individual concerned, to support positive lifestyle changes after a cardiac event (Astin, Horrocks, and Closs, 2014).

The aim of the current research was to gain greater insight into the experiences of a group of participants who identified that they had positively adjusted after having a heart attack. The researchers hoped to learn more about the factors, processes and strategies involved in positive adjustment and how these may have implications for future research and clinical service delivery.
Methodology

Design

The study used a qualitative design with one to one semi structured in depth interviews. The use of IPA was decided as appropriate due to the aim being to identify the subjective experience and meaning making of participants (Brocki & Wearden, 2006). Qualitative analysis has been identified in previous cardiac research as adding greater insight into participant’s illness perceptions (Janelle, O’Connor and Dupuis, 2015).

Ethical approval was gained from the research and development department of the hospital and the local centralised NHS Research Ethics Committee

Participants

Ten men who had a heart attack at the same London hospital and who identified as having adjusted positively following their heart attack were interviewed between three to five months post their heart attack. No attempt to quantify ‘positive adjustment’ was made, as researchers wanted to explore the subjective experience of this. The age range was 41- 85 years with the mean age being 63.5. Whilst males and females were invited, it was only males who expressed interest in participating in the study. Eight of the ten men were living with a partner whilst two lived alone. Nine participants identified as being white with four being white British and five identifying as
‘any other white background’. One participant identified as ‘any other mixed background’. Whilst three of the participants were retired at the time of the interview, seven of the participants reported professional and managerial careers. Other participants reported craft and related trade worker occupations and one stated that they were unemployed.

Procedure

Individuals who identified themselves as having positively adjusted were invited to participate during the third week of their hospital Cardiac Rehabilitation program and discuss any queries they had with the researcher and/or members of the Cardiology Department. Interviews were conducted at in a hospital clinic room. The researcher reviewed the consent form with the participants before they signed it, ensuring fully informed consent was obtained. Interviews took between 50 and 80 minutes. The interview schedule consisted of open-ended questions regarding the participants’ experience of their recovery from their heart attack such as; ‘What does it mean to you to have had this heart attack? And ‘How do you feel in your body at the moment?’

Participants were provided with various contact details in the event of the interview bringing up issues that they wished to discuss further. Interviews were conducted by two psychologists and were digitally recorded and transcribed. Interview transcriptions included all spoken words, pauses, false starts and other aspects worth noting (e.g., laughter).
The researchers engaged in reflexivity interviews to ‘make explicit’ some of the features that they may have bought into the research. Particular attention was paid to the fact that both researchers were outsiders to the experience of the participants, and the effect this could have on the power differentials in the research interviews.

Data analysis

Transcribed interviews were analyzed using Interpretative Phenomenological Analysis (IPA) to make sense of the subjective accounts of the participants.

Broadly speaking, IPA is a process that continually moves from detailed description of the text to interpretation, and from looking at the particular lived experience, to the shared. To this end it has been described by Smith (2007) as an iterative and inductive cycle. Six stages of the analysis as outlined by Smith, Flowers and Larkin (2009) were engaged in. Two psychologists did the analysis together, cross validating emergent and sub themes.

Analysis and discussion

Insert here

Figure 1: Diagram illustrating the six master themes and how they relate to the over-arching theme; ‘I was in control of it from the start’.
As is visualized in the figure above, the analysis yielded one overarching theme “I was in control of it from the start” and six master themes. This section will outline each of these master themes, drawing from the words of the participants.

**Personal resilience and adaptive coping strategies**

Participants described a personal sense of resilience that helped them to adapt positively. This seemed to comprise of some dispositional attributes (e.g., optimism) as exemplified by Alan:

“But I’ve always been positive in my life, I’ve never been negative”

*Alan, 10/3*

Participants also described a multitude of adaptive coping strategies. They tended to draw from a more general approach to life and adversity to describe this:

“You get setbacks. I mean you just put them behind you and you think well look, you know, I’ve survived this. I’ve done this. I’ve managed this. I’ve been in worse situations and I’ve survived. So there’s no reason why it shouldn’t happen again.” *Henry, 21/6*
“From my age of post war you really wouldn’t make a fuss about something that happened to you. It happened, it’s happened and you get on with it.” John, 34/5

Here John seems to be saying that his generational experiences mean that he can accept and move on from difficulty. An implication here is that those of other generations might be less accepting of situations, becoming stuck and struggling to move on.

Coping styles described ranged from downward social comparisons to accepting uncertainty and proactive problem solving. Below Charles describes his ability to feel grateful for his situation, this appears to be enabled by his focusing on the ‘thousands of people’ who are worse off than him.

“Well I’m lucky basically, that’s how you summarize it, isn’t it? I mean, you’re not as badly off as thousands of people- simple as that, yes.”

Charles, 18/25

For several participants the role of control and predictability was underscored. For Charles, it seems very important that he felt in control:

“And I was in control of it from the start as far as I was concerned, you know, just saying right, after 10 minutes I want an ambulance, that sort of thing. It wasn’t a question of passing out and not knowing what to do.” Charles, 15/15
Additionally, how participants managed the uncertainties faced also shed light on their coping styles. Below Alan describes the importance of acceptance of your own situation:

“And I accept…see I think that’s very important with humans that they have to accept you know what they’re going through at the time or, and I think a lot of people don’t you know, they’re this attitude that something brighter on the other side of the fence.” Alan, 18/8

Participants tended to make statements that seemed to minimize their experience. One interpretation is that participants were avoiding some of the difficulty in their situations by minimizing their experiences. Here Henry describes his experience as ‘not that frightening’ whilst describing an experience being in intensive care in hospital not being able to breathe.

“The heart attack was not that frightening to me. I mean, there was a couple of days when I was in hospital…and I couldn’t breathe.” Henry, 30/22

**Empowered experience of care and recovery**

Four participants cited negative experiences during their hospital care, including the shock of being discharged quickly. However eight out of ten participants described positive experiences of care. This included the
kindness and attentiveness they experienced whilst in hospital as well as the support that they received following discharge from cardiac rehabilitation services. They described appreciating being respected and involved in decisions about their care:

“They were very kind. I mean I found everyone here very kind and nice. And they were very professional. So yes, I mean even...and they spoke to me. They told me what you know what was happening. You know, I wasn't treated like an object.” David, 14/19

Below Henry talks about making his own informed decisions and feeling empowered.

"I'm making an informed...yes; the doctor gives me all the information that I need, that he can give me.” Henry, 6/3

Another theme was participants trusting in their health professionals. Participants described feeling safe on arrival to hospital, and confident in the health professional’s ability to take care of them.

“Well it was good treatment. I knew what they were going to do and I was confident in it.” Edward, 12/20

Participants also describe taking an active role in their recovery. The importance of taking control when possible was key, as is explained in the
theme ‘adaptive coping styles’. The way that participants related to their care possibly informs us about their adjustment processes. It feels relevant that in addition to behaviour of health care professionals, these participants seemed comfortable taking an empowered role as a patient, as well trusting that the health professionals around them were delivering high quality care.

**Responsibility to others; appreciation of social support**

Most participants talked about appreciation of the important role of those around them in providing social support. Below Frank demonstrates the use of downward social comparisons to underscore this:

> “I mean, I think if you are undergoing this kind of scenario on your own, then you only have your own personal resources to help you deal with the situation because it's life changing and life affecting. So if you have other people, even if you just have one other person around, better still the support of the whole family, then it puts things in focus and helps you come to terms with your situation.” Frank, 8/21

Nearly all participants described caring support from their loved ones. This response from others was described as a validating of the connections and relationships with others. In addition, experiences of being unwell appeared to focus what was most important for the participants. Below David describes clarity in wanting to be with his family:
“… and I think the other sensation which I had before when I had a sort of near death experience, was just wanting to have my wife and daughter with me. That was all.” David, 13/11

Most participants stated that their relationships remained intact and unchanging, whilst some also talked about their experience of having a heart attack as enhancing their relationships. David articulates his experience of receiving more kindness from others around him.

“Certainly it's brought our family closer together because I realised how upset my daughter and wife must feel about all of this. By and large people have responded to it with great kindness and it's as if it's given people an opportunity to show kindness to me where sometimes, you know in the normal routine of work you don't have the opportunities. So that's been to some extent an eye opener. To a great extent it's improved my personal relationships.” David, 23/6

Conversely, Alan describes experiencing being treated differently.

“All of a sudden you're like disabled, or you know, you're not a real human being whereas, you know, the irony of that is I exercise every morning because of this heart attack and I'm much fitter than they are, you know.” Alan, 2/16
Alan gives a vivid explanation of a shift in how he feels he was being treated by others and that this is at odds with how he feels within himself.

Some participants described feeling a sense of responsibility to those around them, and described this as a motivating part of their recovery:

“I've got people who rely on me, so I can't afford to die just yet...so that keeps me going.” Henry, 18/26

Below Charles describes his experience of worrying about the impact that his heart attack would have on his wife. Many participants described this type of experience and appeared to be conscious of the needs of their loved ones throughout their experience of being unwell.

“But yes, I was a-conscious and b-able to talk and think about what it meant. Worried of course initially though I was going to be out of action for a while - that was the initial concern, yes. Worried that my wife was suddenly going to be burdened, those kinds of things.” Charles, 14/12

**Limited impact on self despite shock of heart attack**

Participants described the shock of having a heart attack and the suffering involved, however they tended to focus on moving on from that experience relatively quickly, both through their physical and psychological recovery. Henry describes an example of this whilst having a difficult time in hospital:
“But those two days were very difficult. I had trouble, and really the pain was very bad. I had trouble breathing and, you know, I was waking up at night with terrible chest pains actually.” Henry, 7/21

He then goes on to say:

“But that didn’t last very long you know. I was up and about a few days later. It was as if nothing had ever happened, you know”. Henry, 10/1

Many participants described recovering quicker than they had expected and being pleasantly surprised by this.

“I achieved some degree of normally much quicker than I had anticipated.” Frank, 7/6

Here Alan describes not considering his heart attack after his recovery.

“I didn’t consider my heart attack after my recovery process - let’s say a week or two, or three weeks after, or a month even after. And I was doing things as normal.” Alan, 4/22

Interestingly whilst he starts with an emphatic statement he starts to move the timeline for how long he was affected by the event backwards. This could
suggest some doubt in his initial statement on reflection as he is reminded that it had more of an impact than he first said.

Here John describes expecting to be ‘exactly the same’ in the future. It is interesting that he talks about being ‘in no way different whatsoever’ but also being slower. This inconsistency was present in a number of participant’s descriptions. It could suggest that they are motivated to see their experience in one way (i.e., being unchanged) and to overlook actual changes to their lives.

“Well in the future I expect myself to be exactly the same as I was and slower as I was before the heart attack, and in no way different whatsoever. And I know if I didn’t, wouldn’t tell people nobody would notice anything whatsoever different about me.” John, 26/25

As participants have all self-identified as having experienced ‘positive adjustment’ there could be a functional role in seeing their recovery as quick and as themselves as unchanged. This theme and participants’ sense of ‘not changing’ contradicts the narrative presented in the next theme regarding their heart attack as a growth experience.

‘A new lease of life’; Heart attack as trigger for positive change

This theme highlights the ways in which participants described their heart attack as stimulating positive changes in their lives. Many participants
described their heart attack as reminding them of their mortality. This
appeared to focus their perspectives on what was most important to them.

David talks about how it has helped him to think about how he wants to be
remembered when he has died which helped him to prioritize his work better.

“…and the positive, very positive thing about the heart attack is that,
and it’s probably sounded big headed, but you know, it’s made me
think, well, you know, one day I’m going to die. What do I want to be
remembered for?” David, 21/18

Charles states that:

“Just generally being sort of, trying to be a nicer guy sort of thinking in
as many ways as possible. And I tend to be uptight sometimes and if
you let go of that and you actually start standing back. I mean periods
in hospital [should] almost be mandatory for anybody whether real or
not in a way, but it’s not incarceration but it’s you know, for a few days
you lose your liberty” Charles, 25/11

Here Charles describes being more motivated to be a ‘nicer guy’. He seems
to be talking about the importance experiencing hospitalisation, and of not
‘being free’ that led him to consider himself and how he would like to be going
forward. In addition it seems that this has helped him to make, and maintain,
changes in ‘standing back’ more, possibly like he did in hospital.
Participants also stated that their heart attack motivated them to make positive lifestyle changes. This ranged from stopping smoking to changing diet and increasing their physical exercise. Below Henry describes how he was shaken up and that this translated into motivation for change:

“It was a good opportunity to stop, you know. It sort of shook me up a little bit and I thought well you know I'd better do something about that.”

Charles, 15/18

Participants described that changes to their lifestyle have resulted in an enhanced sense of well-being. Ian describes experiencing a ‘new lease of life’ by feeling better post-heart attack than before, which came as a surprise.

“Now I've still got energy, I feel good, it's almost like a new lease of life where you do something positive to yourself, and you actually walked away better than what you were before, which is something that I wouldn't have imagined. So that's why, you know, if you ask why anyone here is positive, well that's me. I couldn't be more positive how I feel.” Ian, 10/24

**Acceptance of continued adjustment in relationship to body**

Whilst participants described a largely enduring sense of self and the limited impact of the heart attack on their lives, some did describe continuing to
adjust to managing medicines post heart attack as well as some ongoing symptoms. Largely participants described an accepting attitude towards this process. Below Henry describes medications as his only reminder.

“I mean the only thing that makes me think about it is the fact I have to take so many tablets now. But that's pretty much the only reminder that I did have the heart attack you know.” Henry, 11/7

This reflects the general trend in participants citing a possible negative impact from the heart attack experience, and following it up swiftly with a qualifying sentence. They describe regarding the overall scheme of things, this was an acceptable difficulty.

Part of the continued adjustment following a heart attack was described as a heightened awareness of bodily symptoms. Below Alan describes an example of this in his vivid descriptions of his heightened experience of eating food post heart attack:

“No, it's a sensation, it's a sensation of well-being, you know, for example, if I eat grapes or oranges, you know something I feel like, I don't know like pins going through my veins, you know, but you know, clearing things, you know, I feel an injection of something.” Alan, 18/30

Alan described attributing his heart attack to a ‘very bad’ diet beforehand. It appears that his meaning and experience of eating food has shifted
considerably. It is very interesting his imagery (pins going through veins) sounds similar to angiography and the process ‘clearing veins’ when he had his heart attack. He later provides a fascinating description of eating junk food:

“But when you eat that [junk food] it's like there's no sensation after, you know, it's like there's no sensation of well-being it's just like dull and deadness, you know.” Alan, 19/3

Firstly, Alan appears to be highly attuned to how what he eats makes him feel. Secondly, he attributes ‘deadness’ to his former diet, which he believes was responsible for his heart attack and could have killed him. Alternatively he attributes ‘well-being’ to healthier foods that are associated with his recovery.

I was in control of it from the start'

Researchers felt that the overarching theme was well summed up by this previous presented quote from Charles. All of the participants described their experiences of control and lack of control throughout their heart attack and recovery, and these themes run through all six of the master themes presented. Some participants described feeling in control even during their heart attack, whereas others who described fear and shock during this time described trusting in their health care team to care for them. As described above, participants described feeling in control of their recovery, being aware that their actions and lifestyle would impact their future risk. Participants also
described the process of recovery as largely predictable. Where participants found that aspects were out of their control, they appear to have been able to draw on effective coping strategies and accept this.

**General Discussion**

The themes that emerged from the analysis provide an in-depth description of how these men make sense of their ‘positive adjustment’ and highlight a number of intrapersonal and interpersonal factors and processes. The overarching theme ‘I was in control of it from the start’ emerged with six subthemes: ‘personal resilience and adaptive coping strategies’; ‘empowered experience of care and recovery’; ‘responsibility to others and appreciation of social support’; ‘limited impact on self despite shock of heart attack’; ‘a new lease of life: heart attack as a trigger for positive change’; and ‘acceptance of continued adjustment in relationship with body.’ These themes shall now be discussed in relation to a range of psychological models and concepts. Firstly, the themes of a ‘trigger for positive change’ and ‘acceptance’ arguably relate to connecting with one's values as a basis for positive change, which has been identified in additional research within a post-heart attack population (Hildingh, Fridlund and Lidell, 2006). The identification of values based goals and acceptance of difficulty are key components of Acceptance and Commitment Therapy (ACT) (Hayes, Strosahl and Wilson, 1999). ACT encourages development of mindfulness skills to alter one’s relationship with difficult thoughts and emotions: firstly, to be less influenced by these; and secondly, to live in line with one’s values. That is, to clarify and live by what is important to oneself, as this may become lost in the struggle people may have
with difficult physical and cognitive symptoms (Hayes, Strosahl and Wilson, 1999).

The current study identifies themes which could be conceptualised within an ACT framework, as the participants noted shock and difficulty regarding the immediate event, but all reported moving beyond this to develop meaningful actions. This included developing an acceptance of difficult thoughts and feelings, which allowed individuals to identify which factors were within their control, to make sense of the event and to then utilise adaptive coping strategies to continue their lives in a valued direction. This finding supports a growing evidence base for the use of ACT with people with physical health conditions as this approach encourages development of adaptive coping strategies, particularly due to the crucial role of lifestyle adjustments in managing coronary heart disease risk factors (Prevedini et al. 2011, Spatola et al., 2014).

In addition to ACT concepts, the importance of social relationships was highlighted in the emerging themes, which links with previous research regarding positive adjustment to a health condition e.g. Egan et al. (2011). The current sample discussed the importance of their own social networks and feeling a sense of responsibility towards them; this also arguably links with the ACT goals of developing valued directions.
Finally, the overarching theme of "I was in control from the start" appears to incorporate psychological concepts of locus of control (Rotter, 1966) and self-efficacy (Bandura, 1977); as the participants described their strong sense of agency in navigating their rehabilitation and belief in their ability to develop acceptance of, and make adjustments following their heart attack.

**Conclusions and clinical implications**

This study provides an in-depth description of the way in which these men experience and make sense of 'positive adjustment' following a heart attack. The sample was self-selecting and small, therefore no claims can be made about the representative nature of these findings. The study intentionally avoided attempts to standardise or define 'positive adjustment', and was concerned with the subjective identification and experience. Therefore these findings do not make claims about what a 'positive adjustment' is. There were no female participants in the sample. This may be reflective of the lower prevalence of heart attacks in the female population, and the under-representation of women in cardiac rehabilitation programmes (British Heart Foundation 2014).

The findings suggest that how one relates to control in the context of this experience is particularly important. Participants’ ability to focus their energy on what they have control over and to accept factors that they cannot control has some important clinical implications. For instance, psychologists within multi-disciplinary teams could develop training for medical professionals to help patients develop valued directions and a sense of control and self-
efficacy, for instance collaborative communication and linking medical goals to the valued directions of the patient e.g. improved cardiovascular health to enable continued engagement with family. The findings of this study suggest that further research could measure acceptance and perceived control processes in people recovering from acute health events and managing long term health conditions and that this could give further insight into the factors and processes facilitating resilience in this population.

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