

Physical Activity in Women with Arthritis (2009)

Summary Report



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Arthritis is very common among adult women in Canada. No cure exists for arthritis. Therefore, physical activity participation is a recommended strategy to help any adult cope with her/his arthritis. The focus of our study was on what may or may not keep adult women with arthritis from doing physical activity. Adult women with arthritis are at particular risk of not only having arthritis but also having difficulty in being active. Our research was supported by a grant from the Social Sciences and Humanities Research Council of Canada (SSHRC).

In particular, our study examined women's attributions (they explain their success or lack of success at being regularly active). We were interested in whether women who reported that they were successful in being active differed from women who said they were not as successful on a number of social psychological factors, which we know are important for being active. You will see these factors below. Through this project, we hope to better understand how to help women with arthritis to regularly do the important health behaviour of physical activity, when they are able to do so, despite their arthritis.

Information for our study was gathered from women who had been told by their doctor that they have arthritis. These women were from all over Canada. Information was collected from January to April 2009 using an online survey. The following section contains a summary of our main findings.

Summary of Results

Participants: 118 Canadian women gave consent to participate in this study. These women all indicated that their doctor had diagnosed them as having arthritis. The average number of years that they were diagnosed with arthritis was 9 years. The majority (81%) of the women in this study felt that they were “limited in doing some daily activities due to their arthritis”. In addition the majority (74%) also took medication to control their arthritis.

Top Three Reasons for Doing Physical Activity

Participants were asked to select their top 3 reasons for doing endurance types of physical activity. Endurance activities were defined as activities that involve moving your large muscles in a continuous fashion (e.g., walking, swimming, biking).

The percentages below include the number of participants who stated the reason as one of their top 3 reasons for doing physical activity.

Reason for Doing Physical Activity	Frequency (out of 118)	Percent
Health	113	95.8%
Energy	74	62.7%
Enjoyment	61	51.7%
Appearance	48	40.3%
Relaxation	25	21%
Other	14	11.8%
Social Time	12	10%

Written responses for “Other” reason included:

“dancing for artistic/creative experience, maintain strength, pain and mood management, feel good about oneself, walking dog, for fitness, relaxation/stress relief, better sex life, weight control, as part of occupation”

Note: Of the 118 participants in this study, 5 women did not select “health” as one of their top 3 reasons for being active. The rest of the analyses only include those who put health as one of their top 3 reasons (113 participants).

Successful/Not-Successful at Meeting Physical Activity Guidelines

Participants were asked to report if they were or were not successful at meeting the physical activity recommendations of Health Canada (at least 1 hour of light activity every day; or 30-60 minutes of moderate activity 4 or more days a week; or 20-30 minutes of vigorous activity 4 or more days a week; or some combination of these intensities) in the last 4 weeks.

Participants could choose either “successful” or “unsuccessful” as a response.

Response	Frequency (out of 113)	Percent
Successful	54	47.8%
Unsuccessful	59	52.2%

As you can see, about half of the participants said they were successful at meeting the physical activity guidelines for endurance activities. The other half said they were not as successful.

Written responses for “cause”

Participants were asked to report the “cause” of their success (or lack of success) at meeting these guidelines. Many participants who were “successful” reported that the cause of their regular activity was: “for pain relief”, “because it is a habit”, or “because they feel more positive when exercising”. Some common causes for not meeting the recommendations included: “lack of time”, “fatigue”, or “pain”.

Attributions

The survey included questions about the women’s attributions -- in other words, how the women explained the cause of their success or lack of success in meeting the physical activity guidelines for endurance activities. Attributions revolve around whether one feels that their cause for activity or lack of activity is: (a) under one’s control or out of one’s control – called personal control, (b) stable over time or unstable over time – called stability; and (c) something about oneself or something about others – called locus of causality.

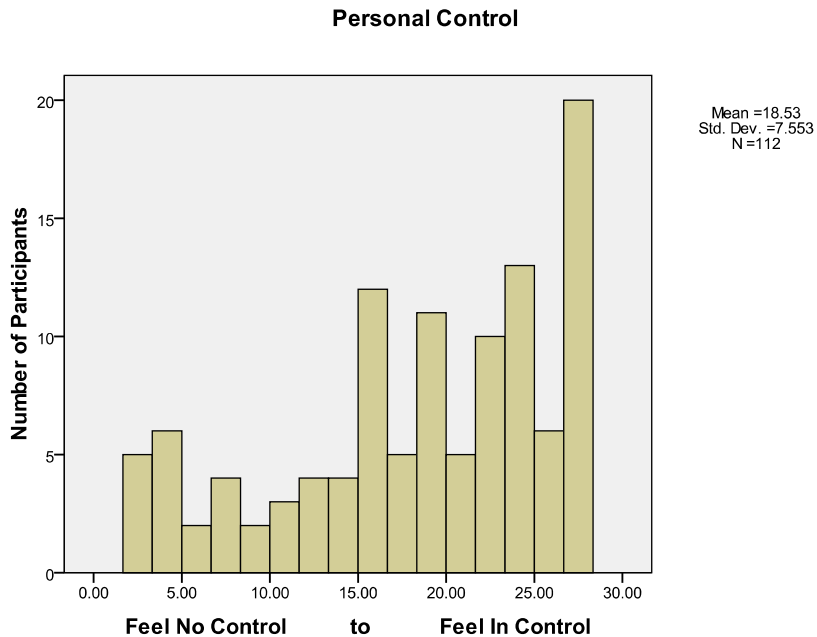
(a) Personal control attributions

As the chart below shows, differences in personal control were found between those women who considered themselves as being “successful” at meeting the activity recommendations and those women who did not. The numbers represent the average score for each group of women. A higher score represents that the group felt more “in control” of the cause of their success or lack of success in being active.

Whole Sample	“Successful” at meeting recommendations	“Unsuccessful” at meeting recommendations
18.5	22.6	14.8

Overall, these numbers show that women who reported being successful felt that the cause of their success was more under their control. Less successful women felt that they had less control over the cause of their lessened activity.

The chart below represents the ratings of personal control across the whole sample.



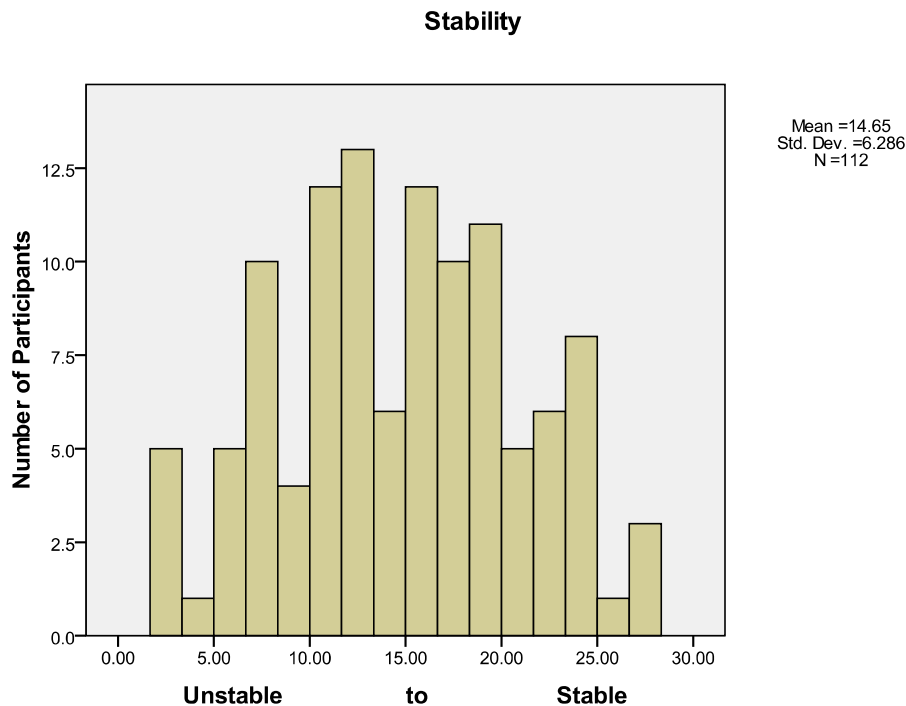
(b) Stability attributions

Like personal control, stability was different between those women who considered themselves as being “successful” at meeting the activity recommendations compared to those women who did not. The numbers in the chart below represent the average score for each group of women. A higher score represents that the group felt that the cause of their success or lack of success at being active was more “stable”.

	“Successful”	“Unsuccessful”
Whole Sample	at meeting recommendations	at meeting recommendations
14.6	17.5	12.0

Overall, these numbers show that women who reported being successful felt that the cause of their success was stable, meaning it didn’t change much. Less successful women felt that the cause of their lessened activity was less stable, meaning it changed a lot.

The chart below represents the ratings of stability across the whole sample.



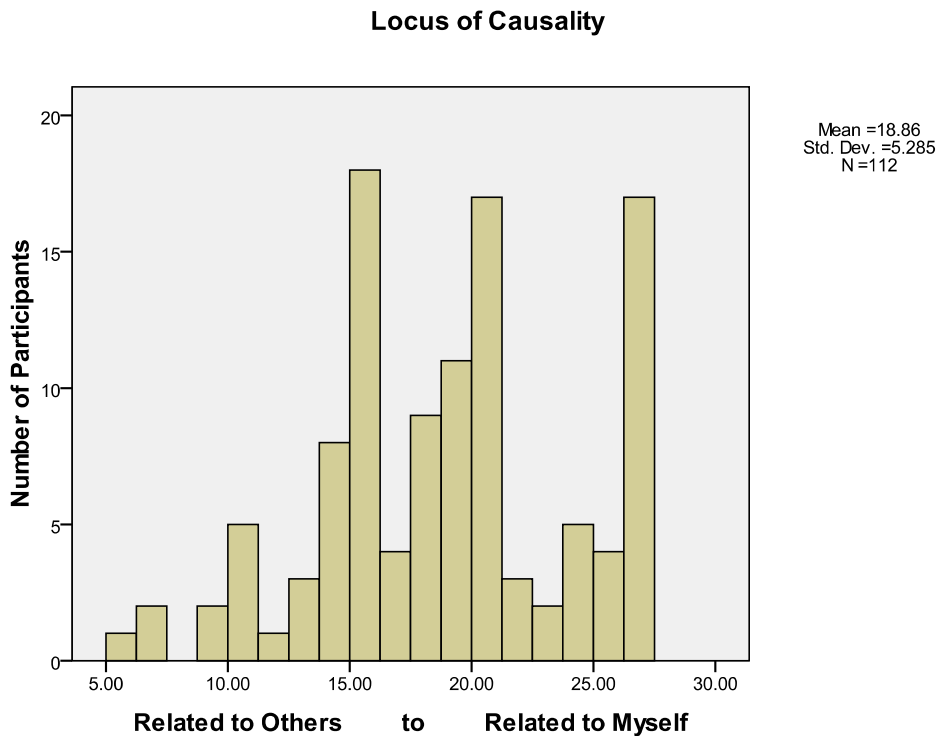
(c) Locus of causality attributions

In addition to differences in personal control and stability, differences in locus of causality were found between those women who considered themselves as being “successful” at meeting the activity recommendations compared to those women who did not. The numbers represent the average score for each group of women. A higher score represents that the group felt their cause for success or lack of success in being active had to do with themselves (as apposed to other people).

	“Successful”	“Unsuccessful”
Whole Sample	at meeting recommendations	at meeting recommendations
18.9	20.6	17.2

Overall, these numbers show that women who reported being successful felt that the cause of their success had a lot to do with themselves. Less successful women felt that the cause of their lessened activity had more to do with others.

The chart below represents the ratings of locus of control across the whole sample.



Emotions

Participants were asked to think about the amount of endurance activity that they did over the last 4 weeks (*none to a lot*). Then, they reported the extent to which they experienced certain emotions due to their endurance activity. These emotions were grouped into positive (e.g., proud, happy, competent, pleased) and negative (e.g., guilty, depressed, ashamed, upset, disappointed) categories.

Positive Emotions

In the chart below are the average scores for the positive emotions. The lowest possible score was 4 (*don't feel at all*) and the highest possible score was 36 (*feel very much*).

	“Successful”	“Unsuccessful”
Whole Sample	at meeting recommendations	at meeting recommendations
21.3	27.8	15.3

Overall, women who reported being successful in meeting the recommendations also reported that they had more positive emotions (proud, happy, competent, pleased).

Negative Emotions

In the chart below are the averages for the negative emotions. Again, the lowest possible score was 4 (*don't feel at all*) and the highest possible score was 36 (*feel very much*).

Whole Sample	"Successful" at meeting recommendations	"Unsuccessful" at meeting recommendations
10.8	6.7	14.7

Overall, women who reported being successful in meeting the recommendations also reported that they had less negative emotions (guilty, depressed, ashamed, upset, disappointed).

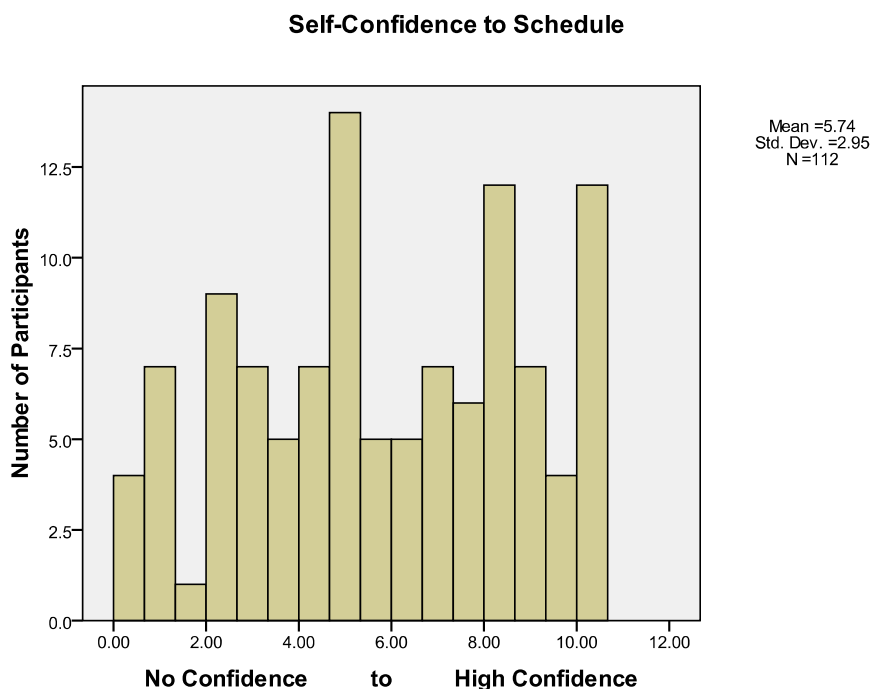
Self-Confidence to Schedule in Physical Activity

Participants were asked about their confidence to fit activity into their schedule (e.g., How confident are you that you can rearrange your schedule so that you do endurance physical activity at the recommended level every week for the next month?).

The chart below demonstrates that the “successful” participants felt much more confident in their ability to schedule physical activity into their life. Scores ranged from 0 (*not at all confident*) to 10 (*completely confident*).

Whole Sample	“Successful” at meeting recommendations	“Unsuccessful” at meeting recommendations
5.7	7.6	4.1

The chart below includes the whole sample and demonstrates that confidence levels varied greatly among participants.



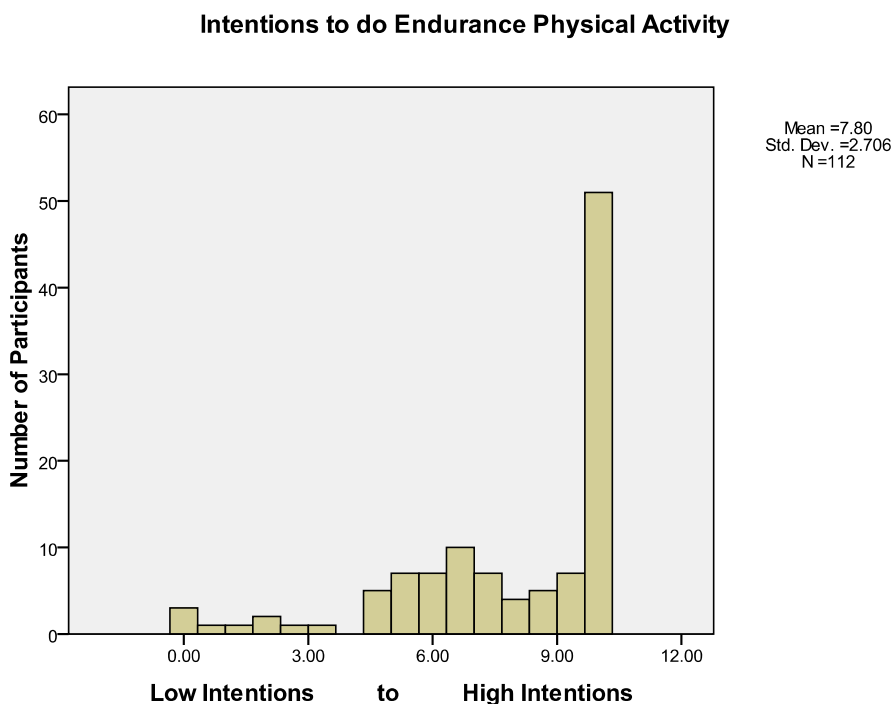
Intentions

Participants were asked about their intentions to do endurance physical activity every week during the next month at the recommended level for health benefits.

The results revealed that those women who considered themselves as being successful at meeting the activity recommendations also had higher intentions to be active in the next month. The less successful women also had high intentions to be active; just not quite as high as the other group of women. Answers ranged from 0 (*do not intend*) to 10 (*definitely will*).

Whole Sample	“Successful” at meeting recommendations	“Unsuccessful” at meeting recommendations
7.8	9.2	6.5

The chart below includes the whole sample and shows that most participants had high intentions to be active in the upcoming 4 weeks.



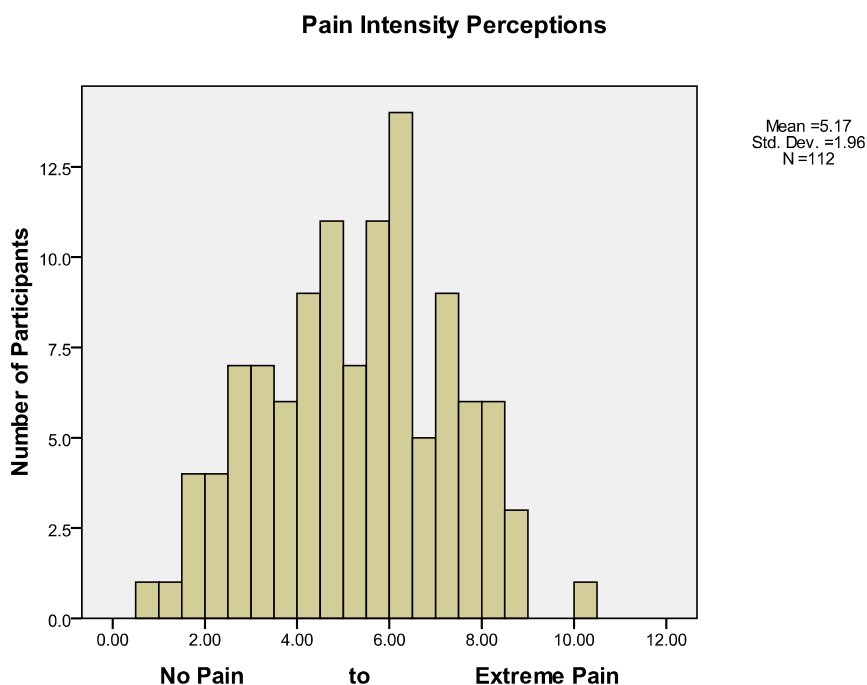
Pain Intensity Perceptions

Participants were asked about how much pain they experience from their arthritis.

The results revealed that those women who were “successful” at meeting the physical activity guidelines experienced a little bit less pain than those who were not as successful. The answers ranged from 0 (*no pain*) to 10 (*extreme pain*).

Whole Sample	“Successful” at meeting recommendations	“Unsuccessful” at meeting recommendations
5.2	4.8	5.6

The chart below demonstrates that most participants experienced moderate pain due to their arthritis.



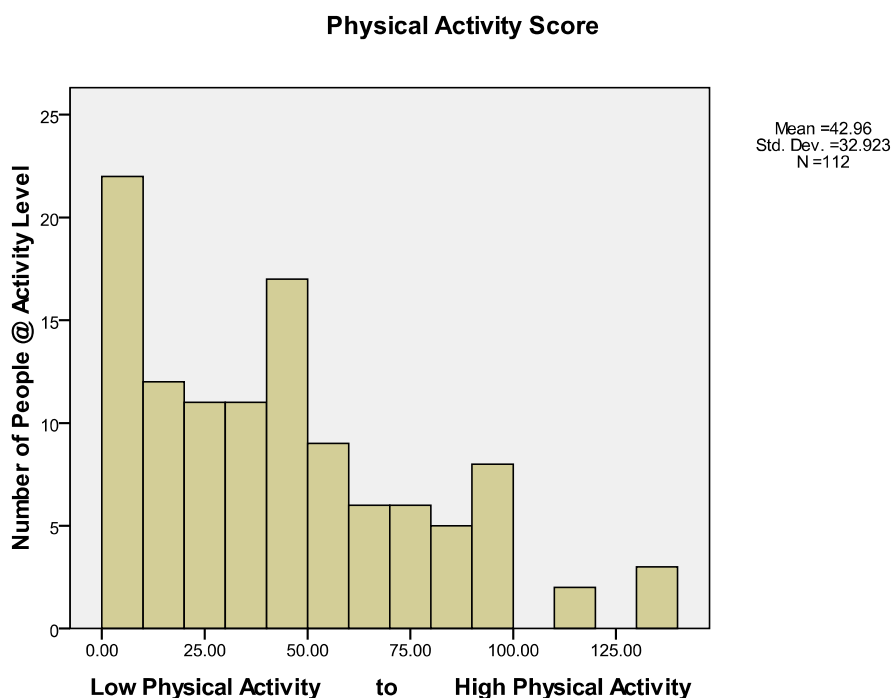
Actual Physical Activity

Participants’ actual physical activity was assessed by asking about how many times per week they did mild, moderate, and strenuous types of activities.

These results revealed that those who considered themselves “successful” were indeed more active than those who did not. Below are the average activity levels for each group. Higher scores represent higher activity levels.

Whole Sample	“Successful” at meeting recommendations	“Unsuccessful” at meeting recommendations
43	60	27

The below chart demonstrates the pattern of activity found across the whole sample.



Additional Findings

Factor Related to being Successful or Unsuccessful:

The numbers below represent the relationships between the listed variable (e.g., personal control, positive emotions, negative emotions, etc.) and being successful or not. A higher number indicates a stronger relationship (with “1” being the strongest possible relationship) between the variable and success at being active. **If the number is positive, it means that being successful is related to higher levels of that variable** (e.g., those who rate themselves as successful tend to have higher physical activity). **A negative number indicates that being successful is related to lower levels of that variable** (e.g., those who rate themselves as successful tend to have lower pain intensity).

Variable	Relationship to being “successful”
Personal Control	+ .517
Stability	+ .446
Locus of Causality	+ .325
Positive Emotions	+ .619
Negative Emotions	- .387
Self-Confidence for Physical Activity	+ .595

Intention to do Physical Activity	+ .499
Pain Intensity	- .204
Physical Activity	+ .514

Overall, the chart shows that when adult women with arthritis report being successful at meeting the recommendations for endurance activity, they also:

- **Feel more in control of the main cause of their activity** – which is a good thing as research shows when people feel like they have more control, they are more likely to be active.
- **Their main cause for being active is more stable** – which is a good thing as it means that the cause will be there over time, which will help them to be active over time as well.
- **Their reason for being active has to do with themselves** (and not other people) – which is also a good thing. If we believe the cause for our activity has to do with ourselves, and not others, we are more likely to be active.
- **They experience more positive emotions and less negative emotions** from being active. This type of emotional pattern promote regular activity.
- **Have more confidence that they can regularly schedule** in their endurance activity. We know from other research that this type of confidence is related to being more active.
- **Have a higher intention** to do endurance activity in the next month.
- **Actually do more** physically activity.
- **Have a bit less pain** due to their arthritis. This is good because physical activity is recommended as a way to reduce arthritic pain, over time.

What is the take home message?

In summary, women with arthritis who reported being successfully active enough for health benefits expressed that the cause of their success was more under their own control, more stable, and had more to do with themselves (not others), compared to women who reported being less successful at being active. The women who reported themselves as being successful also had higher confidence to schedule physical activity into their lives and had higher intentions to be active, although both groups had fairly high intentions for activity. In the last month, the successful women did more physical activity than the other group of women. The pain that the successful and unsuccessful participants perceived was fairly similar with the “successful” participants perceiving slightly less pain.

One take home message from this study is that differences existed between women with arthritis who rated themselves as successful at meeting the recommendations for physical activity compared to those women who rated themselves as less successful. These differences are apparent in their physical activity levels, and in a number of other, social psychological factors. If we can help the less successful women change in these social psychological factors, then it is more likely that they too will be active at the recommended levels.

One particular focus should be on helping women identify a cause for their activity that is more under their control, more stable, and has to do with themselves and not others. Helping to change how people explain the cause of their activity is called “attribution re-training”. We will be conducting future studies on attribution retraining to figure out the best way to do this.

Attribution retraining is important. Other research shows that individuals who feel that the cause of their activity is indeed more under their control, more stable, and has to do with themselves, also tend to have:

- more positive emotions, confidence to schedule in activity, higher intentions to be active, and less negative emotions.

Taken together, these changes lead to individuals being more active.

There is an obvious need for more research in this area. We hope to build on these research findings with future studies. Our overall goal is to apply the knowledge gained in these studies to help women with arthritis cope with their disease and achieve the health benefits of physical activity. This one study gives us a much better understanding of some factors that may be extremely important in helping women with arthritis be regularly active.

We are extremely appreciative of the time you have given to our study. Without each and every one of you, our study could not have been done. We hope that you find this summary informative.

If you wish to participate in other studies, please email Carly Priebe, Research Assistant, at carly.priebe@usask.ca.

Sincerely,

Dr. Nancy Gyurcsik, on behalf of the research team.

Thank you to all of the participants involved in the 2009 Physical Activity in Women with Arthritis Survey.

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Researchers:

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