

Self-reported treatment expectations and motivations of a large cohort of patients with fibromyalgia (FM) and osteoarthritis (OA) attending the Gastein Healing Gallery regularly

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Background: The Gastein Healing gallery combines several treatment factors such as low level radon exposure, high humidity and mild hyperthermia in a moderate altitude above sea level. Every year several thousands patients with a variety of diseases including osteoarthritis, rheumatic diseases and chronic pain conditions seek treatment in this health facility. Our objectives were to assess and compare treatment expectations and motivations in a cohort of patients with FM and OA attending the Gastein Healing gallery regularly.

Methods: We conducted an anonymous online survey with patients regularly attending the Gastein Healing Gallery in Bad Gastein. In this health facility approximately 12,000 patients with a variety of disease are being treated annually. Of those, 6,465 patients were invited by email to fill out the survey. Socio-demographics and disease related variables (e.g. development of health condition until and since gallery sessions, pain, etc.) were assessed, including 2 blocks of questions (answer format: agree/ mostly agree/slightly agree/disagree) such as „I am convinced that the Gallery sessions help me to...“ (expectations) following 5 statements, e.g. „reduce my pain“ and „If I perform Gallery sessions, then I will again...“ (motivations) following 6 statements, e.g. „be able to maintain my ability to work.“

Results: In total 2,017 patients responded (31%) of which a subset of 368 respondents indicated a diagnosis of FM (39,1%) or OA (60,9%) at different locations. The mean age (SD) of the subset was 61 years (10,7) and 41,3% were male. The current pain level was 4,3 (2,3) on a NRS (range 0-10). The majority attended the gallery once every year (50,3%), not regularly (27,4%) or every 2 years (10,3%). Marked or moderate improvement of health condition until first gallery session was indicated by 23,4% and since by 71,2% of patients (figure 1). Concerning the 5 items measuring expectations a large proportion of patients agreed or mostly agreed (56,9% for `strengthen my muscles` - 86,6% for `improve health condition`) with no significant differences between the patient groups (figure 2). The same picture was found for the 6 motivation items (50,1% - 78,3%). Only in 2 items (`to perform moderate activities`/`to perform daily chores`) there was a significant difference between the patient groups (figure 3).

Conclusions: A high proportion of our cohort with FM or OA reported considerable improvements in their health conditions since they perform regular visits in the gallery. Over 50% of all patients agreed or mostly agreed that their symptoms and pain and thus their health condition improve with gallery sessions. Patients are also highly motivated to take sessions because a high proportion feel that the gallery help them to improve physical functioning, participation and preserve their ability to work. To conclude, from our patients´ point of view regular gallery sessions have important positive effects on a variety of domains including symptoms, health status, functioning and participation and help them to improve their health condition in the future.

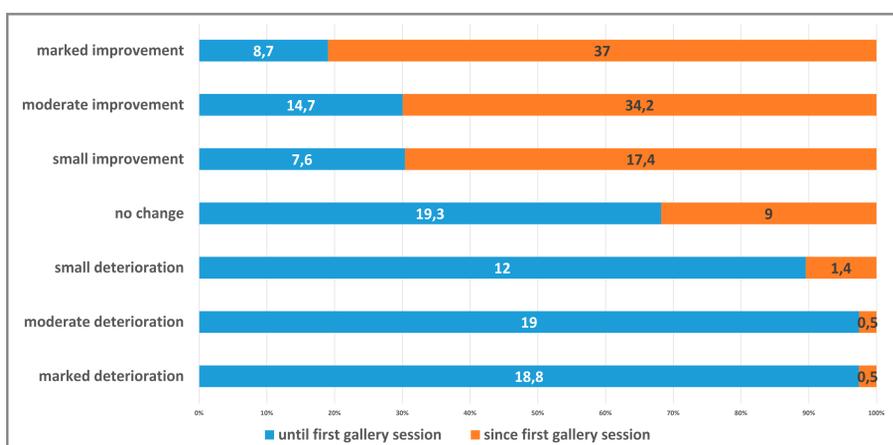


Fig. 1: Development of health condition until and since gallery sessions in %

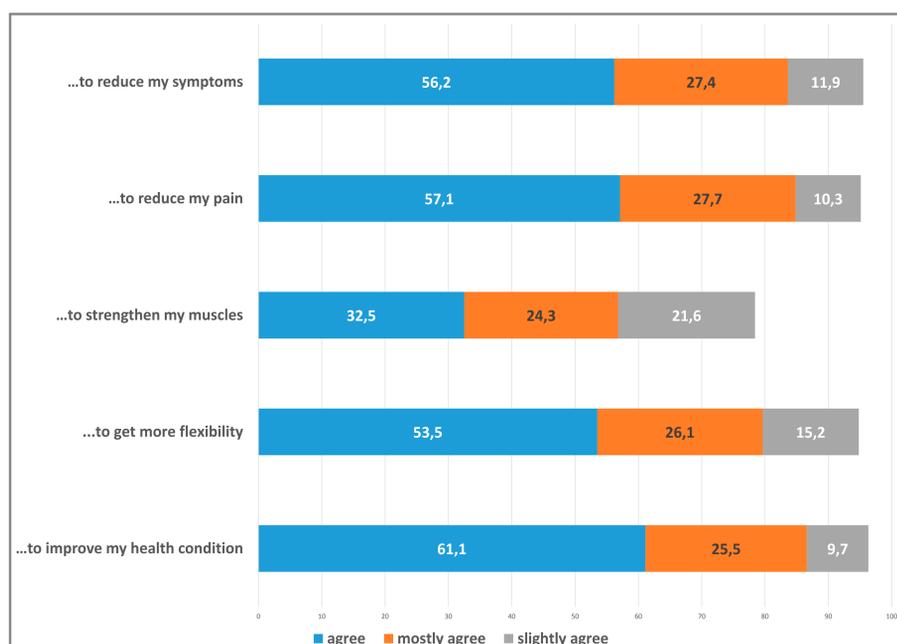


Fig. 2: I am convinced that the Gallery sessions help me... (%)

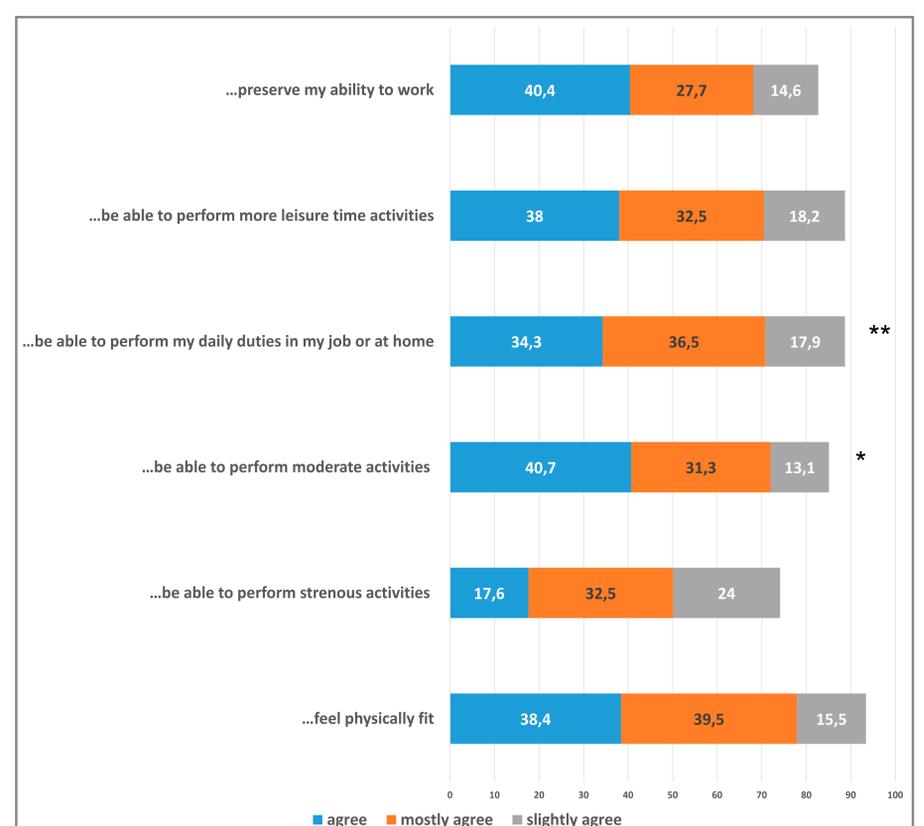


Fig. 3: If I perform Gallery sessions, then I will again... (%)

Self-reported treatment expectations and motivations of a large cohort of patients with ankylosing spondylitis (AS), rheumatoid arthritis (RA) and psoriatic arthritis (PA) attending the Gastein Healing Gallery regularly

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Background: The Gastein Healing gallery combines several treatment factors such as low level radon exposure, high humidity and mild hyperthermia in a moderate altitude above sea level. Every year several thousands patients with a variety of diseases including rheumatic diseases seek treatment in this health facility. Our objectives were to assess and compare treatment expectations and motivations in a cohort of patients with AS, RA and PA attending the Gastein Healing gallery regularly.

Methods: We conducted an anonymous online survey with patients regularly attending the Gastein Healing Gallery in Bad Gastein. In this health facility approximately 12,000 patients with a variety of disease are being treated annually. Of those, 6,465 patients were invited by email to fill out the survey. Socio-demographics and disease related variables (e.g. development of health condition until and since gallery sessions, pain, etc.) were assessed, including 2 blocks of questions (answer format: agree/mostly agree/slightly agree/disagree) such as “I am convinced that the Gallery sessions help me to...” (expectations) following 5 statements, e.g. “reduce my pain” and „If I perform Gallery sessions, then I will again...” (motivations) following 6 statements, e.g. „be able to maintain my ability to work“.

Results: In total 2,017 patients responded (=31%) of which a subset of 503 respondents indicated a diagnosis of AS (73,8%), RA (17,5%), or PA (8,7%). The mean age (SD) of the subset was 55,2 years (10,7) and 61,4% were male. The current pain level was 4,1 (2,2) on a NRS. The majority attended the gallery once every year (61%), every 2 years (13,7%) or not regularly (10,5%). Marked or moderate improvement of health condition until first gallery session was indicated by 16,9% and since by 79,1% of patients (Fig. 1). Concerning the 5 items measuring expectations a large proportion of patients agreed or mostly agreed (62,3% for ‘strengthen my muscles’ - 92,5% for ‘improve health condition’) (Fig. 2). The same picture was found for the 6 motivation items (58,6% - 85,8%) (Fig. 3). Only in 3 of 11 items (expectation and motivation) there was a significant difference between the groups, i.e. patients with PA scored lower.

Conclusions: A high proportion of our cohort with AS, RA and PA reported considerable improvement in their health conditions since they perform regular visits to the gallery. Over 2/3 of all patients agreed or mostly agreed that their symptoms and pain and thus their health condition improve with gallery sessions. Patients are also highly motivated to take sessions because a large proportion feel that the gallery helps them to improve physical functioning, participation and preserve their ability to work. To conclude, from our patients’ point of view regular gallery sessions have important positive effects on a variety of domains including symptoms, health status, functioning and participation and help them to improve their health condition in the future.

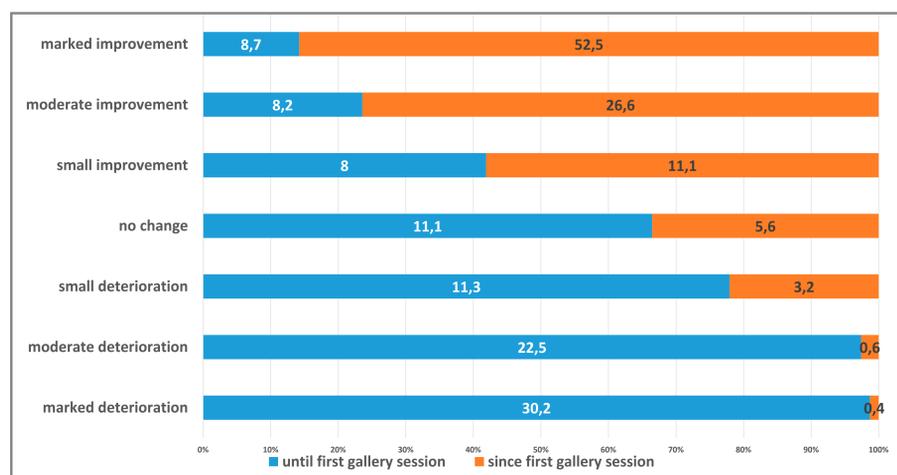


Fig. 1: Development of health condition until and since gallery sessions in %

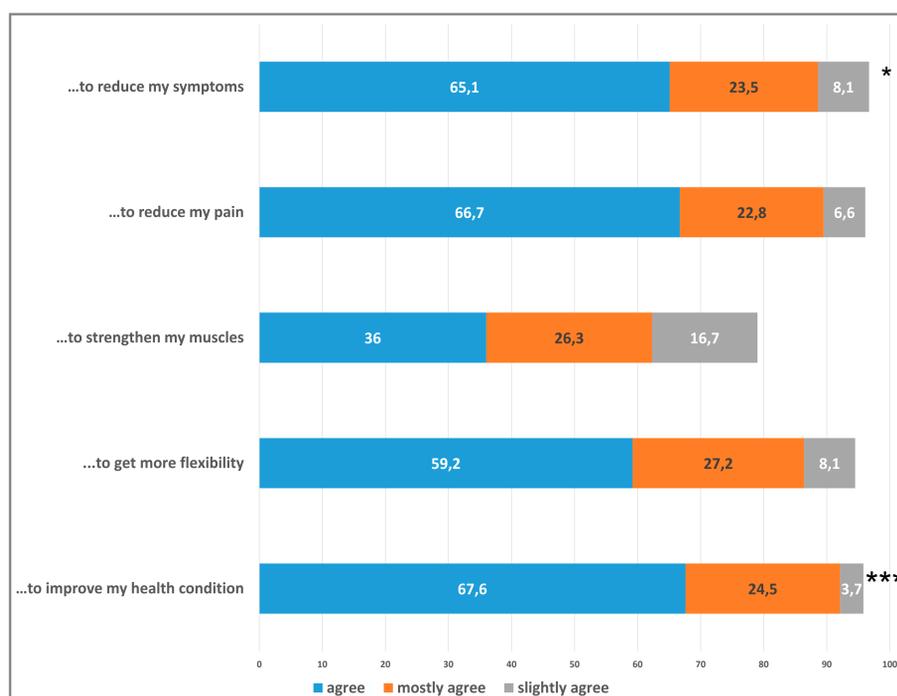


Fig. 2: I am convinced that the Gallery sessions help me... (%)

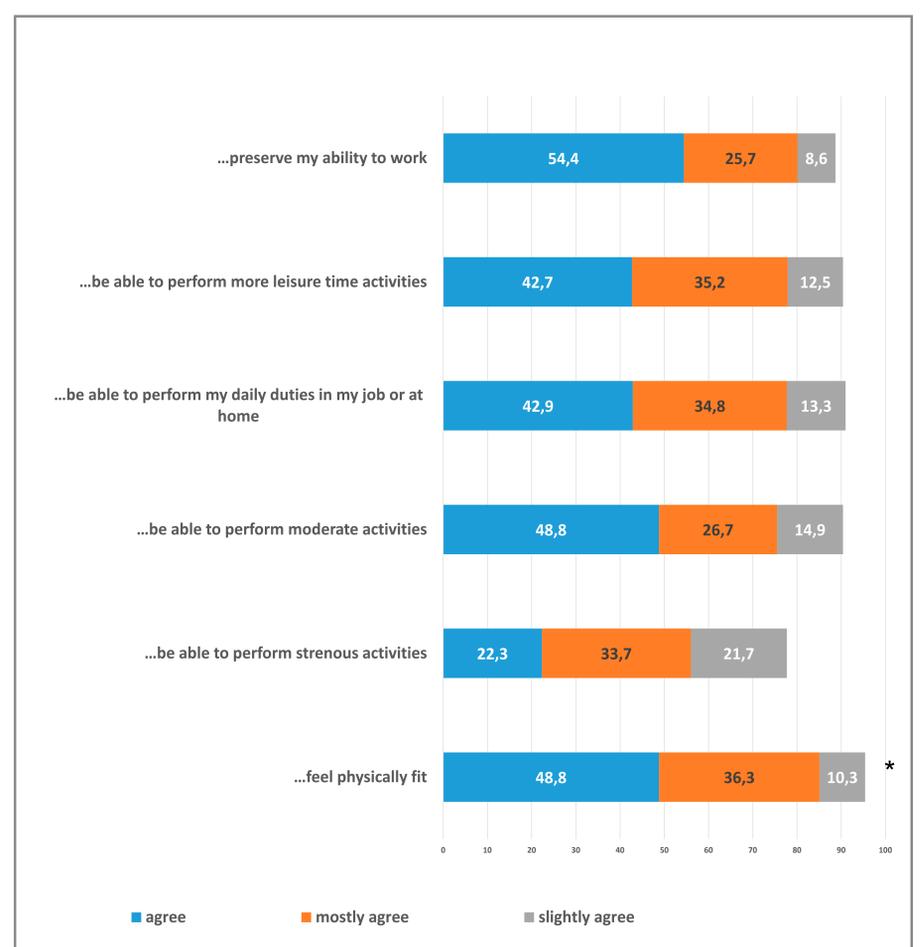


Fig. 3: If I perform Gallery sessions, then I will again... (%)

Influence of self-reported treatment expectations and motivations on treatment outcomes of a large cohort of patients with ankylosing spondylitis (AS), rheumatoid arthritis (RA), fibromyalgia (FM) and other chronic pain syndromes (CP) regularly attending the Gastein Healing Gallery

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Background: The current literature on management of patients with musculoskeletal pain indicates that factors related to patient expectations and motivations are associated with both clinical outcomes, satisfaction with treatment, and influences behavior. The purpose of this study was to examine individuals' expectations and motivations with regard to their ability to predict health and well-being outcomes in a diverse sample of individuals many of which were diagnosed with rheumatological disorders and seeking treatment at the Gastein healing gallery.

Methods: Patients were 1444 individuals diagnosed with ankylosing spondylitis (23%), arthritis (22%), or fibromyalgia (9%) or individuals who were undiagnosed but seeking relief of chronic pain (46%). Average age was 58 years, about 52% were female, and almost three quarters (73%) had a high school education or less. One-third was employed, just over one-third was retired (37%), and the remaining percentage held other roles (e.g., homemaker, student, disabled, etc.). Expectations were measured using 5 items and motivations were measured using 6 items (see Table 1). Health and well-being measures included: pain, self-rated physical health, life-satisfaction, depression, anxiety, stress, fatigue, and sleep problems. Data were analyzed using structural equation modeling where a latent variable was used to model the effects of expectations and motivations on health and well-being.

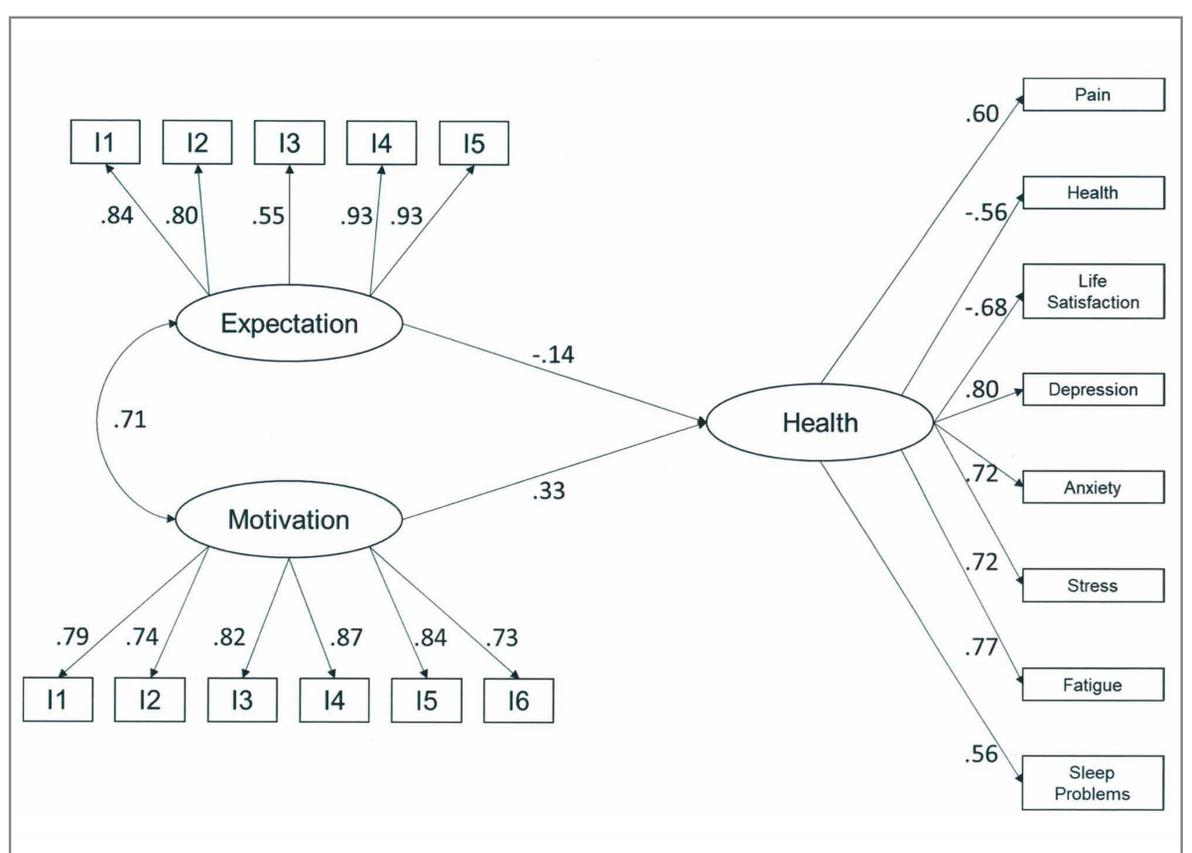
Results: Measurement models were used to first confirm that each construct was a unidimensional, well-fitting construct. Both one- and two-factor measurement models were estimated to determine if expectations and motivations scales were unique. The one-factor model did not fit the data well $\chi^2 = 3493.64$, $p < .001$, BIC = 3682.79. The two-factor model fit the data better, $\chi^2 = 1208.31$, $p < .001$, BIC = 1419.29 suggesting that expectations and motivations are unique constructs, though they are highly related, $r = .71$, $p < .001$. Structural models (see Figure 1) revealed that both expectations and motivations were significant predictors of health and well-being, after controlling age, sex, and education. Motivations were positively related to health and well-being (Beta = .33, $p < .001$) while expectations were negatively related to health and well-being (Beta = -.14, $p = .001$). Further investigation of the paradox revealed that expectations were serving as a statistical suppressor of the relationship between motivations and health and well-being.

Conclusions: While weakly positively related to health and well-being at the bivariate level, the association between expectations and health and well-being reversed direction in the structural model and acted to increase the magnitude of the association between motivations and health and well-being. Hence, this is a classic example of net statistical suppression in which the key finding is that motivations for attending the healing gallery are an important predictor of actual health and well-being outcomes.

Table 1

Expectation Items	
I am convinced, that gallery sessions help me...	
1)	to improve my health status
2)	to become more agile again
3)	to strengthen my muscles
4)	to reduce my pain
5)	to reduce my health troubles
Motivation Items	
If I perform a rehab with gallery sessions, then	
1)	I will feel physically fit again
2)	I will be able to perform strenuous activities (running fast, lifting heavy things, perform strenuous sports) again
3)	I will be able to perform moderate activities (lifting and carrying shopping bags, walking stairs, walking more than 1 km) again
4)	I will be able to perform daily chores at home or at my work without difficulties again
5)	I will be able to perform more leisure activities again
6)	I will maintain my ability to work

Figure 1



All coefficients are statistically significant $p \leq .001$ and adjusted for the effects of age, gender, and education.