

Drop-out in fitness-sport. Comparing the general relevance of reasons for quitting

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Abstract

Aim of Study. The central question of the present study is how strong are the various reasons for abandoning activities in a fitness studio. And to what extent these reasons differ from one another in terms of importance for the drop-out decision. We also examine whether there are typical priorities in the drop-out justification and which reasons are used, in a statistically significant way, more or less or not at all. **Material and Methods.** A total of 225 people, who had terminated their contract with a fitness studio, were questioned. The survey was conducted as a telephone inquiry about their actual decision. The study was conducted in a health-oriented fitness centre in East Cologne. The fitness facility was opened in 1994 and has a size of 1,100 square metres. **Results.** At the time of the study, the gym had up to 1.151 memberships. Among them, 59% of the members were women and 41% were men. The average age of the respondents was 43.5 years. The average duration of membership added up to 4.4 years. Overall, it is found that only a few of the reasons offered in the survey are also indicated in significant frequency as important for the quitting decision. **Conclusion.** With the exception of membership costs, these reasons have nothing to do with studio conditions, but rather, apart from the mentioned health problems, mainly address issues of time scheduling and prioritizing the training in relation to other areas of life. The data show that the various quitting reasons were clearly evaluated differently by the respondents, and that there was apparently little generalized information on the motives of the quitting decision.

KEYWORDS: drop out, members, fitness-sport.

Received: 20 July 2017

Accepted: 21 November 2017

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Introduction

The fitness line is characterized both by an almost stagnating number of fitness clubs and an annual fluctuation of total membership numbers within the fitness studios. As a result many fitness clubs are constantly struggling with high customer fluctuation. High drop-out rates also have the effect that long-term financial as well as staff-wise arrangements are barely possible to make. Against this backdrop the question then arises: How is it that dropouts occur in fitness clubs at all? In order to answer this question we have to identify the different needs of the customers. In the evaluations and statistical analyses presented here, the focus is on how strong the various reasons are for quitting activities in a fitness studio. It is also studied to what extent these reasons differ from one another in terms of importance for the drop-out decision. We also examine whether there are typical priorities in the drop-out justification and which reasons are used, in a statistically significant way, more or less or not at all [11, 12, 13]. The collected data should help to derive recommendations for action in order to increase the customer satisfaction in fitness companies and to reduce the long-term drop-out rates by an adequate service offering.

High drop-out rates in sports programs are no exception. This also applies to fitness training in studios, as about

half of the members end their training prematurely [10]. The question concerning the reasons for dropping out hasn't, so far, been studied satisfactorily in Germany, so the knowledge about it is only incomplete. Problematic therefore is also the indication of average drop-out rates in German fitness studios because they are not recorded or published.

Oldrige [8, 9] analysed ten sports programs in the context of preventive measures, setting cancellation rates from 13% to 75%. The analysis of another 18 prevention programs showed drop-out rates from 3% to 87%.

In the study by Oldrige 42% of the dropouts from a rehabilitation program for patients with coronary diseases mentioned "psychosocial reasons" (e.g. lack of interest, problems in the family) [7]. 25% of the dropouts mentioned "unavoidable reasons" (e.g. occupational conflicts, change of employment, change of residence), 22% gave medical reasons and 11% other reasons for quitting.

Brehm and Pahmeier [2], Brehm and Eberhardt [1] questioned fitness studio members about their reasons for quitting training because they had not renewed their membership when their contract ended. The "lack of fun in the sporting activities" was mentioned as a priority factor for quitting the activity. In addition, "motivation problems" (e.g., laziness), "lack of time" (often due to heavy workload) and "financial reasons" (too expensive membership fees) were mentioned as reasons for quitting. In an open question the members were asked for a specific reason for quitting. On this occasion criticism about the "studio atmosphere" (too impersonal) was mentioned, as well as "lack of social support" (e.g. no contact with other members, partner has quit the training, etc.) and "high membership costs" (also for additional services like childcare).

Pahmeier [10] also investigated which factors influence the decision to quit a sports program and found that among 65 respondents each gave an average of 3.6 reasons. The main problems that affected the quitting decision in this case were time management and factors of living and working conditions.

These studies show that quitting a sports program always depends on several factors. The features of quitting a sports activity may be personal and situational characteristics [10].

It is often possible to identify reasons which ultimately lead to dropping out, but the participation behaviour is influenced by a complex factor structure.

Dishman [3, 4] several times remarks critically on the often unsystematic approach of many studies and describes them as "theoretical". He criticizes the limited

data base and imputes it to the lack of uniform models that could simplify research.

Due to this lack of standardization of theories and examination methods, the comparability of the studies is severely restricted.

Material and Methods

Survey methodology

A total of 225 people, who had terminated their contract with a fitness studio, were questioned. The survey was conducted as a telephone inquiry about their actual decision.

The advantages of the telephone survey are the low cost per interview, the possibility of responding to queries and the high external validity. Disadvantages are the lower possible data volume caused by the difficulty to access the responder or lack of interest in a telephone survey, and the possible influence of the interviewer [5]. The study was conducted in a health-oriented fitness centre in East Cologne. The fitness facility was opened in 1994 and has a size of 1,100 square metres. At the time of the study, the gym had up to 1.151 memberships. Among them, 59% of the members were women and 41% were men. The average age of the respondents was 43.5 years. The average duration of membership added up to 4.4 years. The gym faces strong competition. There are competitors who pursue a high price policy, one of which is a provider with a wellness area, but also providers with a low price policy. The competitors' pricing is between €15 and €129 a month.

The study's fitness centre is located at the edge of the forest and about 250 metres from the nearest bus stop. It is also easy to reach by car or by bike or on foot. There is enough parking available. The members are greeted and welcomed personally at check-in and check-out in the reception area. This creates a personal atmosphere.

The fitness studio offers group programs such as gymnastics for the spine and back, for the abdomen, legs and buttocks, body-styling, spinning courses, energy-step courses, Pilates, Yoga, Zumba, Progressive Muscle Relaxation according to Jacobson and rehabilitation sports courses. The group programs are held daily from Monday to Sunday. Furthermore, there is a wide range of strength and endurance equipment, vibration devices, electrical muscle stimulation (Electro-Myo-Stimulation, EMS) devices and a small space for free weights. There is a sauna and a solarium, and a small wellness space with shiatsu massage armchairs and water massage. The gym offers chargeable drinks.

The training and group program staff consists mainly of persons with sports science education. The fitness centre is open almost 360 days a year. The opening hours are Monday to Friday from 9 am to 11 pm and on weekends and on holidays from 10 am to 7 pm. Membership fees are graded according to the type of membership (course membership or equipment membership or both), duration of membership (12 or 24 months), and payment method (monthly or advance payment). The monthly fee ranges thus from 30 to 57 Euros. In addition there is a registration fee of 80 Euros. The survey was conducted by telephone in July 2016. The respondents are persons who have terminated their membership in the period between 07/01/2015 and 06/30/2016. In the aforementioned period, 305 members departed. Of those 225 persons were found and questioned. 54 people could not be found, probably due to a relocation or change of the telephone number. 26 persons did not wish to participate in the survey [12, 14, 16].

The persons were asked about the importance of different reasons for their decision to leave the gym. They were asked to rank the importance of each of these 19 reasons for leaving in a five-point Likert scale. The scaling ranged from “does not apply at all” (coded with the numerical value 1) and “applies strongly” (coded with the numerical value 5). The three intermediate stages were not verbally expressed in the questionnaire; only the polarity of the scale was verbalized over the two extreme points.

Thus, the total of 19 individual subjects were considered as scale marks regarding the significance of individual quitting reasons even in the strict meaning of the metric theory, which in statistical evaluation makes the calculation of mean values and the use of parametric statistical methods possible.

In most of the questionnaire items there were no response refusals, so that in 14 of the 19 questionnaires there are valid values even $N = 225$. In three items there was a missing value, i.e. a person refused to respond, in one item there were 2 missing values and in another item 3 missing values.

In the data analysis, the sample characteristics are initially described in terms of “gender distribution”, “age” (in years and in age categories) and “duration of membership in the studio”. Respondents’ age data were divided into the following four age categories:

- Age category 1: Respondents up to 25 years old
- Age category 2: Respondents between 26 and 40 years old
- Age category 3: Respondents between 41 and 55 years old

- Age category 4: Respondents from 56 years old and over

The evaluations of the 19 quitting reasons are described descriptively on the basis of the distribution characteristic values: mean, median and standard deviation.

A variance analysis with measurement repetition factor is calculated to ensure the inferential statistic of the differences between quitting reasons. The variance analysis checks the empirical data of the sample against the null hypothesis that in total all the reasons for quitting are of equal importance.

It is, of course, to be expected that the sample data will contradict this null hypothesis, since the assumption that all the reasons are of equal importance is not really plausible. The variance analysis initially provides only an “Overall” – significance test, whether there is any difference in the importance between the quitting reasons.

More important than the question of whether there are any differences between the quitting reasons, is the question of which reasons are comparatively particularly important or particularly unimportant.

For this purpose one could theoretically make full individual pairwise comparisons. However, this is impractical for two reasons:

The number of required individual pairwise comparisons is $171 (18 + 17 + 16 + \dots + 23 + 1)$ individual comparisons. This is very unclear because of the variety of the individual results.

In this variety of individual comparisons via t-tests for connected samples, the problem of so-called “multiple testing” would occur in a very drastic manner, in which the probability of so-called “random signals” strongly increases. A Bonferroni correction with regard to the applied significance level would give a critical value for the protection against the alpha error of $p < 0.00029$ and would be extremely conservative, i.e. the null hypothesis is far too “favorable” [5].

Instead, each mean value of the 19 justifications is tested as regards to significance against the overall mean value of all 19 justifications. One sample t-tests are used here, which check whether the mean value of the importance of each quitting reason differs significantly from the total mean value over all quitting reasons.

Results

Sample description

The sample consists of almost 3/4 of female respondents and 1/4 of male respondents (Table 1). The age range is between 16 and 74 years with a respondents’ mean age

Table 1. Sample distribution characteristic values

		Quantity	%	Mean	Median	SD	Quantity
Gender	female	164	72.9%	–	–	–	–
	male	61	27.1%	–	–	–	–
	Total	225	100.0%	–	–	–	–
Age		–	–	43.5	43.0	13.0	224
Membership duration (years)		–	–	4.4	3.0	3.8	225
Age categories	up to 25 years	20	8.9%	–	–	–	–
	26-40 years	70	31.3%	–	–	–	–
	41-55 years	96	42.9%	–	–	–	–
	> 55 years	38	17.0%	–	–	–	–
	Total	224	100.0%	–	–	–	–

of 43.5 years and a distribution of 13.0 years. In the age categories mentioned, most respondents (42.9%) are in age category 3 and a further 31.3% is in age category 2. Very young respondents represent only 9% of the respondents and respondents over 55 years 17% of the respondents. Contract terminations were made on average after 4.4 years of membership, with a very large distribution (standard deviation) of 3.8.

Descriptive Statistics

Importance of quitting reasons in general

Table 2 shows the mean value, median and standard deviation of the questions concerning the quitting reasons.

Table 2. Mean value, median and distribution of quitting reasons

	Mean value	Median	SD	Quantity
no fun anymore	1.3	1.0	0.9	224
too boring	1.2	1.0	0.7	225
others interests	1.3	1.0	0.9	223
offered too little healthwise	1.1	1.0	0.4	222
problems with daily schedule	2.9	3.0	1.8	225
dissatisfied with customer composition in the studio	1.1	1.0	0.4	224
dissatisfied with instructors supervision	1.1	1.0	0.4	224
crowded training space	1.4	1.0	0.9	225

lack of training progress	1.0	1.0	0.1	225
difficult access to the studio	1.2	1.0	0.7	225
dislike studio atmosphere	1.2	1.0	0.7	225
personal health does not allow further training	1.8	1.0	1.5	225
too lazy to continue the training	1.2	1.0	0.9	225
professional obligations	2.2	1.0	1.7	225
domestic/family obligations	2.0	1.0	1.6	225
membership costs too high	2.0	2.0	1.2	225
relocation	1.2	1.0	0.8	225
too little support from friends/family	1.0	1.0	0.0	225
regular training timetable not compatible with my schedule	2.2	1.0	1.7	225

Table 3 shows the different values that result when the significance of each individual reason in the sample is compared to the mean of the significance of all reasons. Significance test of the differences in the importance of the quitting reasons: over all significance test (Figure 1). As expected, the variance analysis with measurement repeat factor gives a highly significant effect with $p < 0.001$ (F: 64.078; df: 18/201) for N = 219 cases with valid values in all 19 items. So initially it proved particularly significant, that not all reasons are of equal importance and that the differences in the importance of quitting reasons are not a mere random variation of this specific sample selection. This result was to be

Table 3. Significance of the individual reasons in relation to the mean significance of all reasons

Quitting reason	Mean value	Mean value of all reasons	Difference value
no fun anymore	1.3	1.5	-0.2
too boring	1.2	1.5	-0.3
others interests	1.3	1.5	-0.2
offered too little health wise	1.1	1.5	-0.4
problems with daily schedule	2.9	1.5	1.4
dissatisfied with customer composition in the studio	1.1	1.5	-0.4
dissatisfied with instructors' supervision	1.1	1.5	-0.4
crowded training space	1.4	1.5	-0.1
lack of training progress	1	1.5	-0.5
difficult access to the studio	1.2	1.5	-0.3
dislike studio atmosphere	1.2	1.5	-0.3
personal health does not allow further training	1.8	1.5	0.3
too lazy to continue the training	1.2	1.5	-0.3
professional obligations	2.2	1.5	0.7
domestic/family obligations	2	1.5	0.5
membership costs too high	2	1.5	0.5
relocation	1.2	1.5	-0.3
too little support from friends/family	1	1.5	-0.5
regular training timetable not compatible with my schedule	2.2	1.5	0.7

expected, however, since a complete equivalence of all the quitting reasons would not be very plausible.

The extremely high variance clarification (partial Eta squared) of 852 appears to be more important in this result. This means that 85.2% of the total variance in all quitting reasons can be calculated based on the differences of the individual reasons. Only 15% of the total variance is attributable to differences between the respondents within the same quitting reason. Thus, the respondents of the sample answered very homogeneously as regards to the different quitting reasons.

Table 4. Significance of the deviations of the mean values of the individual quitting reasons from the total mean value of all quitting reasons

	One-sample test			
	Test value = 1.488			
	t	df	Sig.	Mean value difference
no fun anymore	-3.039	223	0.003	-0.189
too boring	-5.806	224	0.000	-0.288
others interests	-3.749	222	0.000	-0.228
offered too little health wise	-17.316	221	0.000	-0.411
problems with daily schedule	11.584	224	0.000	1.392
dissatisfied with customer composition in the studio	-13.967	223	0.000	-0.408
dissatisfied with instructors supervision	-15.968	223	0.000	-0.408
crowded training space	-2.179	224	0.030	-0.124
lack of training progress	-61.938	224	0.000	-0.475
difficult access to the studio	-6.836	224	0.000	-0.324
dislike studio atmosphere	-6.706	224	0.000	-0.297
personal health does not allow further training	2.771	224	0.006	0.281
too lazy to continue the training	-4.103	224	0.000	-0.244
professional obligations	6.456	224	0.000	0.716
domestic/family obligations	4.635	224	0.000	0.490
membership costs too high	6.537	224	0.000	0.521
relocation	-5.413	224	0.000	-0.301
regular training timetable not compatible with my schedule	6.541	224	0.000	0.761

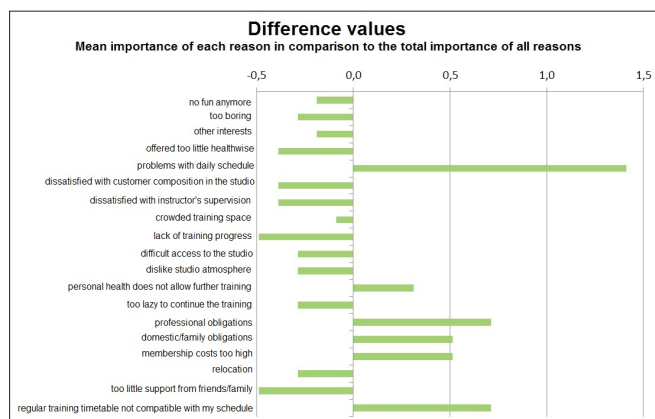


Figure 1. Difference values of the individual quitting reasons in relation to the total mean value

Significance test: Importance of the individual quitting reasons compared to the mean importance of all quitting reasons.

Table 4 shows the results of the significance test using so-called one-sample t-tests. It is tested, in each case, the zero hypothesis that the mean valuation for the respective quitting reason (apart from random variations) does not deviate from the total mean value of all quitting reasons, which is 1.488.

It seems that each individual quitting reason differs significantly in the evaluation of the importance of the total mean value of all quitting reasons. In 16 of the 19 cases, the results are significant at the 0.1% level, in two cases significant at the 1% level and in one case only significant at the 5% level.

The results confirm that the individual quitting reasons were actually evaluated independently by the interviewees and are not the expression of a generalized dissatisfaction or disappointment, but rather really reflect specific quitting motives.

Discussion

Most of the quitting reasons have a mean value of 1 or close to 1, which means that the majority of respondents have chosen the answer “does not apply at all”. In one case, where the item “too little support from friends/family” was chosen, the respondents have chosen uniformly the first response category; there is no variance in the answers.

The highest rating is clearly found at the quitting reason “Problems with daily schedule”; also here the distribution is obviously the largest. This question therefore shows the greatest heterogeneity in the respondent group. The study of Brehm and Eberhardt [1] shows similar results. It is striking that the respondent persons among 30 to 50 years stated “big time problems” as an obstacle to continue their participation in a sports program. This age group was highly stressed for professional and familial reasons.

In five other items, mean values are around 2 (mean values between 1.8 and 2.2). These are in descending order the reasons: “professional obligations”, “regular training timetable not compatible with my schedule”, “domestic/family obligations”, “membership costs too high”, and “personal health does not allow further training”.

The quitting reasons that were chosen by the respondents to be of considerable importance mainly refer to personal time management and thus relate to the prioritization of other sectors of life and other obligations.

It is striking that, with the exception of the membership costs, all studio conditions do not play any role or at

least a significant role in the quitting decision. Of equal small importance are also personal reasons concerning motives and interests. In the research made by Rampf [11] it becomes also evident that 19% of the respondent group stated “too high cost for membership” as the main single reason for quitting the sports program. However, the real amount of cost is not the actual problem but rather the negative cost/benefit balance.

As regards to health, it is striking that, although on the one hand the reason “personal health does not allow further training” appears relatively strong, on the other hand however the reason “offered too little health wise” is practically not indicated.

The significance test shows, on one side, that the quitting reasons were indeed evaluated very differently, and that a kind of generalized “mind set” is hardly reflected in the evaluation. How a concrete evaluation is made largely depends on the questioning direction, that is, on the presented quitting reason, and only on a much lesser scale on personality differences.

Each individual quitting reason is evaluated differently as regards to significance, thus differentiated, from the basic trend over all quitting reasons.

Thus, the overall conclusion of the collected data is that only the supposed too high fees play an important role for quitting the membership. As a recommendation for action this suggests a more flexible and differentiated price policy on the part of the fitness company. This is the only way to respond to the individual needs of the members and thereby to achieve a better cost/benefit balance for them. A company might consider for example a price concept that includes a variety of class passes or memberships, such as Power Plate classes or cardio classes or an EMS (Electro-Myo-Stimulation) membership. Also interesting could be a weekend membership or a morning pass from 9 a.m. to 5 p.m. with reduced fees or a sauna pass only. For persons who would like to exercise only sporadically or people who are often away on business or those who exercise elsewhere a 10-days pass or a day pass would be appropriate. The aim of all these measures is to maintain member loyalty and to customize the membership to changed life circumstances.

Conclusions

Overall, it is found that only a few of the reasons offered in the survey are also indicated in significant frequency as important for the quitting decision.

With the exception of membership costs, these reasons have nothing to do with studio conditions, but rather, apart from the mentioned health problems, mainly

address issues of time scheduling and prioritizing the training in relation to other areas of life. Only the supposed excessive costs play a role for quitting the membership. As a recommendation for action this again suggests a more flexible and differentiated price policy on the part of the fitness companies.

The data show that the various quitting reasons were clearly evaluated differently by the respondents, and that there was apparently little generalized information on the motives of the quitting decision.

The overall conclusion is that there are still too few studies on the drop-out problem available globally as far as the fitness area is concerned. There is reason to believe that the companies reluctantly release such sensitive data for scientific purposes or that they don't collect the data in the first place. However, this would be an essential instrument in order to decrease the termination ratio and to improve the success of the fitness companies in the long run.

References

1. Brehm W, Eberhardt J. Drop-Out and adherence in Fitness-Studio. *Sports Sci.* 1995; 25(2): 174-186.
2. Brehm W, Pahmeier I. Dropping out or remaining; Breakpoints of a broad sports career and conditions of a withdrawal. *Spectrum Sports Sci.* 1990; 2(2): 33-56.
3. Dishman RK. Compliance/adherence in health-related exercise. *Healthy Psychol.* 1982; 1: 237-267.
4. Dishman RK. Exercise adherence: its impact on public health. Champaign, Human Kinetics Books. 1988.
5. Homburg Ch, Krohmer H. The process of market research: definition of data collection, sample formation and questionnaire design. In: Herrmann A, Homburg Ch, Klarmann M. *Handbook Market research* (3rd edition). Wiesbaden: Gabler. 2008; 21-51.
6. Malhotra N, Mukherjee A. The relative influence of organisational commitment and job satisfaction on service quality of customer contact employees in banking call centres. *J Services Marketing.* 2004; 18(3): 162-174.
7. Oldrige NB. Compliance of Post Myocardial Infarction Patients to Exercise Programs. *Med Sci Sports.* 1979a; 11(4): 373-375.
8. Oldrige NB. Dropout and Potential Compliance – Improving Strategies in Exercise Rehabilitations. In: Nagele F, Montoye H, editors. *Exercise in Health and Disease.* Springfield 1981.
9. Oldrige NB, Steiner DL. The Health Belief Model: Predicting Compliance and Dropout in Cardiac Rehabilitation. *Med Sci Sports Exercise.* 1990; 22(5): 678-683.
10. Pahmeier I. Drop-Out and adherence in recreational and health sport. Favourable and unfavourable conditions for sports participation. *Med Sci.* 1994; 24(2): 117-150.
11. Rampf J. Drop-Out and adherence in fitness sports. Favourable and unfavourable conditions for activities in the gym. Cwalina, Hamburg 1999.
12. Theodorakis ND, Howat G, Ko YJ, Avourdiadou S. A comparison of service evaluation models in the context of sport and fitness centres in Greece. *Managing Leis.* 2014; 19(1): 18-35.
13. Zarotis G. *Goal Fitness-Club: Motivation in Fitness-Sport.* Meyer & Meyer, Aachen 1999.
14. Zarotis G, Tokarski W. Gender-specific differences for motivation in health-oriented sports and fitness facilities. *Spectrum free time.* 2005; 28(2): 81-89.
15. Zarotis G, Athanailidis I, Arvanitidou V, Mourtziou Ch. Age-specific reasons for dropping out of the Fitness-Sport. *J Physical Edu Sport.* 2017; 17(2): 916-924.
16. Zarotis G, Athanailidis I, Arvanitidou V, Mourtziou Ch. Age-dependent fitness centre evaluation by resigned members. *J Physical Edu Sport.* 2017; 17(3): 1926-1933.