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Full Length Research Article

PRESENTATION OF DROPOUT VERSUS TREATMENT GROUPS OF PATIENTS SUFFERING IDIOPATHIC OROFACIAL PAIN

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Abstract

A retrospective analysis of data collected from a group of 565 patients diagnosed as idiopathic orofacial pain patients at the Department of Maxillofacial Surgery, Eastman Dental Institute, London, United Kingdom. Thirty nine percent of the patients were regarded as dropout as they fail to attend more than the first visit and they were not recorded as discharged patients. The remaining 349 patients (61%) were regarded as the treatment group and followed after for a minimum of one year. The results of the study showed that the dropout patients did not differ significantly from the treatment group of patients at any sociodemographic, pre-referral pain or psychiatric indices, diagnostic groups, or their proposed management. However; patients attending the surgical and oral medicine clinics within the department dropped out significantly more frequently than those attending the psychiatric clinic (P<0.001).

Keywords: Sociodemographic, Pre-Referral Pain, Psychiatric Indices, Diagnostic Groups.

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INTRODUCTION

Although long term studies are always faced by the phenomenon of patients' dropoutunfortunately, very few studies addressed this problem and its effects on the credibility of final outcome.The percentage of lost patients (dropout patients) attending long term studies was variable. Patients' dropout was reported to vary from 20% to 50% among long-term studies (Mejersjo and Carlsson, 1983; Funch and Gale, 1986; Smith, 1988; Pilowsky and Barrow, 1990; Feinman, 1993; Curran, 1995; Sloot, 2009 and Ohrabach and Dworkin, 1998). Furthermore, patients attending psychiatric clinics reported a higher percentage of dropouts that ranged from 20-57% after their visit (Blumer, 1980; Turk and Rudy, 1990). While a study of hepatitis C management showed a higher dropout rate of 61% (Lowry, 2011), the voice therapy patients showed even a much higher rate of dropout that reached 65% of the total number of patients (Hapner, 2009). There are many reasons that patients offered treatment at pain in clinics fail to enroll in the treatment programmes. Factors such as moving from the area, deceased, refusal, dissatisfaction with provided treatment, immigration, etc, were being suggested as the prime reason/s for dropout. Other primary reasons had been identified for the patients' refusal of offered treatment/s included: (a) ethnic and racial reasons (Sloot, 2009), (b) lack of insurance coverage, (Turk and Rudy, 1990) (c) opposition of spouses to further treatment, (Turk and Rudy, 1990) (d) unwillingness, (Turk and Rudy, 1990) (e) transportation, other personal and social difficulties (Turk and Rudy, 1990; Gottlieb; 1977; Yatani, 1997), (f) general lack of interest in the focus of the programme (Turk and Rudy, 1990; Gottlieb, 1977), (g) mismatch between the patient's beliefs and expectations and treatment offered (Yatani, 1997; De Good, 1983; Colvin, 1980; Keefe, 1986) (h) perceptions about the cost/risks versus benefits of treatment, (Turk and Rudy, 1990) (i) existing health-related knowledge, skill, and practice, (Turk and Rudy, 1990) (j) degree of adaptation to disease, (Turk and Rudy, 1990) (k) sense of hopelessness or lack of self efficacy, (Turk and Rudy, 1990) (l), dissatisfaction with service, (Gottlieb, 1977; Yatani, 1997) (m) extent of family involvement, (Turk and Rudy, 1990) (n) and problem with medications' side effects or acceptance, (Harrison, 1997; Schwartz, 1996) will all affect resistance to treatment. Additional factor that is responsible for differences in the rate of patients' dropout is the type of clinics where higher lesser number of patients dropout from treatment received by psychiatrists as compared to treatment received in general medical sector for outpatients' mental health in the United States (Olfson, 2009).

MATERIALS AND METHODS

A retrospective analysis of data collected from a group of 565 patients diagnosed as idiopathic orofacial pain patients at the Department of Maxillofacial Surgery, Eastman Dental

Institute, London, United Kingdom. Thirty nine percent of the patients were regarded as dropout as they fail to attend more than the first visit and they were not recorded as discharged patients. The remaining 349 patients (61%) were regarded as the treatment group and followed afterwards for a minimum of one year. All patients had to complete the McGill pain questionnaire, and the Hospital Anxiety and Depression (HAD) scale at each visit they attend. The clinicians running the clinics included the study recorded the patient's socio-demographic data, pre-referral, the results of clinical examination, proposed treatment and follow up suggested at each visit the patients attended. The differences in the initial presentation between the treatment and dropout (or self-discharged) groups will be analyzed and presented.

RESULTS

Differences at initial presentation

Two hundreds and nineteen patients (39%) of the 565 patients dropped out from the study after the first visit. No statistically significant differences were found between the two patients groups in all parameters that includes the followings:

- The socio-demographical data (Table 1). No significant differences were noted between the drop out and the treatment group in term of differences in their age, gender distribution, nor their marital status.
- Pre-referral profile which includes the number of pre-referral consultations, pain history duration, patients' evaluation of interference with life activities due to their facial pain, and existence of other related pain symptoms namely headache, migraine, tinnitus, neck pain, back pain, joint pain, dry skin, and dysfunctional uterine bleeding (Table 1).
- Present pain profile as measured on the McGill's Pain Questionnaire that includes; the present pain intensity (PPI), pain rating index (PRI), and number of words chosen (NWC) (Table 2). Furthermore, analysis of different present pain groups did not show any significant differences between the two study groups.
- Present psychiatric profile as recorded in the Hospital Anxiety and Depression Scale (HAD) (Table 3) was analyzed. In addition, different anxiety and depression groups were not significantly different.

Pain Diagnosis Variation

The variation between the dropout and the treatment groups of patients in the frequency of the three main pain diagnostic disorders was studied. This showed that the highest percentage of the dropout patients were diagnosed as facial arthromyalgia {F.A.} (including Facial Arthromyalgia, and Internal Derangement) which represented 41% of the dropout group, followed by 35% of the dropout patients being among the multiple pain diagnoses group, and lastly the atypical facial pain group {A.F.P.} (including Atypical Facial Pain, Atypical

Table 1. Socio-demographical Data and Pre-referral Profile Variation

Variation Parameter	Variant analyzed	Dropout Group	Treatment Group	Sig.
Socio-demographical Data	*Age*	41.4±15years	40.2±16 years	N.S.
	Female	58%	63%	N.S.
	Males	42%	37%	
	Married	46%	49%	N.S.
	Single	44%	43.5%	
	Widowed	2%	3.5%	
	Separated	2%	1%	
	Divorced	6%	3%	
Pre-referral Profile	*Previous Consultations*	None = 36% 1-3 = 53 % >3 = 11%	None = 40% 1-3 = 49% >3 = 11%	N.S.
	Pain History Duration	≤1 year: 37% ≥1-5 years:40% >5 years: 23%	≤1 year: 40% ≥1-5 years: 40% >5 years: 20%	N.S.
	Other Pain Symptoms	Present: 82% Absent: 18%	Present: 79% Absent: 21%	N.S.
	Interference With Life Activities	Yes: 56% No: 44%	Yes: 54% No: 46%	N.S.

Sig.= Significance N.S. = Non- significant

Table 2. McGill's Pain Questionnaire Indices Variation

Variation Parameter	Variant analyzed	Dropout Group	Treatment Group	Sig.
McGill's Pain Questionnaire Indices	*PPI*	n=219 Mean= 2.4 Std.= 1.1	n= 346 Mean= 2.5 Std. = 1.1	N.S.
	PRI	n= 219 Mean = 17 Std. = 12.4	n= 346 Mean = 17.5 Std. = 12	N.S.
	NWC	n= 219 Mean = 7.3 Std. = 4.7	n=346 Mean= 7.6 Std. = 4.9	N.S.
Pain Intensity Groups	*None-Mild*	n=117 {53%}	n=174 {50%}	N.S.
	Moderate	n=72 {33%}	n=101 {29%}	
	Severe-Very Severe	n=30 {14%}	n= 71 {21%}	

Sig.= Significance N.S. = Non- significant n=Number of Patients

Table 3. Hospital Anxiety and Depression (HAD) Scale Indices Variation

Variation Parameter	Variant analyzed	Dropout Group	Treatment Group	Sig.
HAD Scale Indices	*Anxiety*	n=219 Mean = 7.8 Std. = 4.2	n=346 Mean= 7.6 Std. =4.1	N.S.
	Depression	n= 219 Mean = 4.5 Std. = 4.1	n=346 Mean =4.5 Std.=36	N.S.
Anxiety Groups	*Normal*	n= 219 {54%}	n=187 {54%}	N.S.
	Mild	n=50 {23%}	n=83 {24%}	
	Frank	n=50 {23%}	n= 76 {22%}	
Depression Groups	*Normal*	n= 180 {82%}	n=287 {80%}	N.S.
	Mild	n=20 {9%}	n=44 {13%}	
	Frank	n=19 {9%}	n= 24 {7%}	

Sig.= Significance N.S. = Non- significant n=Number of Patients

Odontalgia, and Oral Dysaesthesia) constituted 24% of the dropout group of patients (Table 4). Those differences in the pain diagnostic groups were statistically non-significant.

Table 4. Pain Diagnostic Groups Variation

Diagnostic Group	Dropout	Treatment	Sig.
Facial Arthromyalgia	n=81 {41%}	n=121 {35%}	N.S.
Atypical Facial Pain	n=48 {24}	n=91 {27%}	
MultipleDiagnoses	n=70 {35%}	n=130 {38%}	

Sig.= Significance N.S. = Non- significant n=Number of Patients

Clinical Assignment Variation

Forty nine percent of the dropout patients were among the group of patients initially attended the Professorial surgical clinic, followed by the Registrars' clinic (35%), Oral Medicine clinic (11%), and lastly only 11 patients (5%) dropout from those who attended the psychiatric clinic. Those differences were found to be of high statistical significance that of P<0.001 (Table 5).

Table 5. Clinical Assignment Variation

Type of Clinic	Dropout Patients	Sig.
Professorial Surgical Clinic	n=108 {49%}	Sig. P<0.001
Registrars' Surgical Clinic	n=77 {35%}	
Oral Medicine Consultant Clinic	n=23 {11%}	
Psychiatric Consultant Clinic	n=11 {5%}	
Total	n = 219 (100%)	

Sig.= Significance n=Number of Patients

Furthermore, the variation in the number of dropout patients to the total number of patients assigned to each clinic was studied. This showed that the dropout patients constituted 50% of the total number of patients attending the Professorial surgical and the oral medicine clinics, followed by 33% of the patients attending the registrars' clinic dropping-out after the first visit, and lastly the dropout patients constituted 16% of the total number of patients attending the psychiatric clinic (Fig. 1).

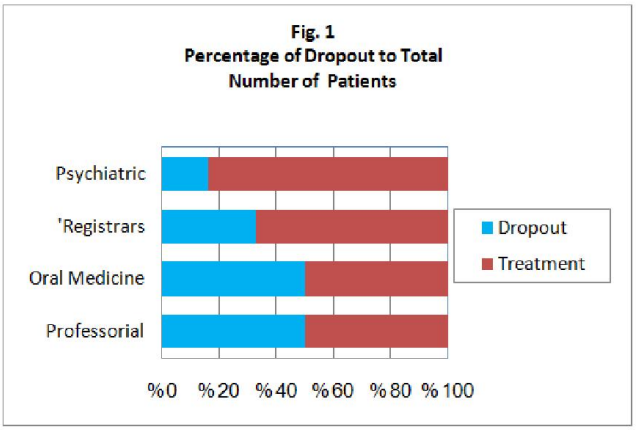
Proposed Treatment

Equal percentages of patients in either the dropout group or the treatment group had "reassurance only" as the proposed treatment at the first visit where it was prescribed for 26% and 27% of the dropout and treatment groups respectively (Table 6).

Table 6. Proposed Treatment Groups Variation

Treatment Type	Dropout Group	Treatment Group	Sig.
Reassured only	n=42 {26%}	n=82 {27%}	N.S.
Active Therapy	n=121 {74%}	n=226 {73%}	

Sig.= Significance N.S. = Non- significant n=Number of Patients



DISCUSSION

The dropout of patients seems to be characteristics of almost all medical studies. Unfortunately, very few studies addressed this problem and its effects on the credibility of final outcome especially in long term studies, even highly clinical and surgical studies such as the long term outcome of dental implants showed a relatively high percentage of dropout (Bornstein, 2008). The results of the current study agrees with those previous reports (Mejersjo and Carlsson, 1983; Funch

and Gale, 1986; Smith, 1988; Pilowsky and Barrow, 1990; Feinman, 1993; Curran, 1995; Sloot, 2009; Ohrabach and Dworkin, 1998; Blumer, 1980; Turk and Rudy, 1990), (Gottlieb, 1977; Yatani, 1997; Olfson, 2009; Cortés-Prieto, 2007) in regards to the higher frequency of dropout where 39% of the patients admitted to this study failed to attend further follow up after the first visit, while they were not recorded as discharged at the end of the first visit. Furthermore, the socio-demographical and pre-referral profile of the studied patients agrees with similar orofacial pain studies involving large group of patients (Wirz *et al*., 2003; Martins-Júnior *et al*., 2010).

The result of the current study further showed that as compared to the general number of patients in each gender group, more men dropout than women in the dropout group as compared to the treatment group; of 42% and 37%respectively. Although those differences were not statistically significant, it agrees with the result of Lowry *et al*[11] where male sex was also associated with dropout from hepatitis C management although this was of weak statistical significance ($P<0.05$). Furthermore, no significant differences existed in any parameter of assessment for the socio-demographical data, pain profile, psychiatric profile, clinicians' indices, or in the different treatment groups between the dropout and the treatment group of patients.

These findings agrees with that of Hapner *et al*. (2009) of their study of voice therapy dropout where no significant differences in dropout rates for gender, age, race, severity of the symptoms or diagnosis was found. The dropout groups of patients differs significantly ($P<0.001$) only in the rate of dropout associated with each clinic involved in the current study. This showed that about one half of the patients who dropout were among the patients attending the Professorial surgical clinic, followed by the registrars' clinic, the oral medicine clinic, and lastly the psychiatric where only 5% of the total number of patients dropout. These results agree with the results of Olfson *et al*. (2009) where patients attending the psychiatrist's clinics showed lesser dropout rate in mental institutes in the United States. This may also emphasize the predominant psychiatric and stress related etiology of idiopathic orofacial pain disorders.

When those dropout cases are compared to the total number of patients attending each clinic, this showed that the dropout cases represents 50% of the total number of patients attending the Professorial and the oral medicine clinics, 33% of the total number of patients attending the registrars' clinic dropout while only 16% of total number of patients attending the psychiatric clinic dropped out after the first visit. The only explanation to those differences in the rate of dropout between the different clinics involved, is that the offered treatment at the surgical and oral medicine clinic fail to satisfy the patients' expectation where most of the patients attending those clinics most likely expected surgical solution for their pain disorder rather than more conservative therapies including antidepressant drug therapy prescribed to them by surgical staff. On the other hand patients attending the psychiatric clinic accepted better psychiatric explanation of the pain etiology and the basis of antidepressant therapy prescribed to them when such management offered to them by a trained psychiatrist, and actually most of those patients they knew that they are referred to psychiatric clinic so their pre-treatment expectation was matching with the proposed treatment at this clinic. Therefore the results of the current study contradict the findings of Blumer *et al*. (1980) and Turk and Rudy, (1990) where 20-57% of the patients referred to psychiatric clinic dropout after their first visit. Furthermore, the results of the current study agrees with the findings of De Good, 1983 Keefe *et al*. (1986) Turk and Rudy, 1990 and Yatani *et al*. (1997) where the mismatch between the patients expectations and the treatment offered was one of the most important reasons for dropout of chronic pain patients.

Declaration

Some of the data used in this publication was used a part of the Ph.D. thesis obtained by the author from the University of London, United Kingdom.

REFERENCES

Blumer, D. *et al*. 1980. Systemic treatment of chronic pain with anti-depressants. Henry Ford Med J: 28; 15-21.

Bornstein, M.M. *et al*. 2008. Performance of dental implants after staged sinus floor elevation procedures: 5-year results of a prospective study in partially edentulous patients. *Clin Oral. Implants Res.,* 19(10); 1034-143.

Colvin, D.F. *et al*. 1980. Characteristics of patients with chronic pain. Sth Med J (Bgham, Al):73; 1020-1023.

Cortés-Prieto, J. and Juez-Martel, P. 2007. Incidences of breast cancer throughout long-term hormone replacement therapy. J Steroid BiochemMolBiol: 104(3-5); 180-189.

Curran, S. *et al*. 1995. Physical and sexual abuse among orofacial pain patients: Linkage with pain and psychologic disorders. *J Orofacial Pain.,* 9(4); 340-346.

De Good, D.E. 1983. Reducing medical patients' reluctance to participate in psychological therapies: the initial session. Prof Pschol: 14; 570-579.

Feinman, C. 1993. The long-term outcome of facial pain treatment. *J. Psychososm Res.,* 37(4);381-387.

Funch, D.P. and Gale, E.N. 1986. Predicting treatment completion in abehavioral therapy program for temporomandibular pain. *J. Psychosom Res.,* 57-62.

Gottlieb, H., *et al*. 1977. Comprehensive rehabilitation of patients having chronic low back pain: *Arch. Phys. Med. Rehab,* 58; 101-108.

Hapner, E. *et al*. 2009. A study of voice therapy dropout. J Voice: 23(3):337-240.

Harrison, S. *et al*. 1997. Atypical facial pain: a double-blind placebo controlled cross over pilot study of subcutaneous Sumatriptan. European Neuropharmacology: 7(2); 82-88.

Keefe, F.J. *et al*. 1986. Behavioral approaches in the multidisciplinary management of chronic pain: programs and issues. *Clin. Psychol. Rev*., 6; 87-113.

Lowry, D.J. *et al*. 2011. Hepatitis C management: the challenge of dropout associated with male sex and injection drug use. *Eur J Gastroenterol Hepatol*, 23(1); 32-40.

Martins-Júnior, R.L., Palma, A.J. and Marquardt, E.J. 2010. *et al*. Temporomandibular disorders: a report of 124 patients. *J. Contemp Dent. Pract*., 11(5); 071-078.

Mejersjo, C. and Carlsson, G.E. 1983. Long-term results of treatment for temporomandibular joint pain-dysfunction. *J. Prothet Dent.,* 49 (6); 809-815.

Ohrabach, R. and Dworkin, S.F. 1998. Five years outcome in TMD: relationship of changes in pain to changes in physical and psychological variables. Pain: 74; 315-326.

Olfson, M. *et al*. 2009. Dropout from outpatient mental health care in the United States. *PsychiatrServ*: 60(7);898-907.

Pilowsky, I., Barrow, C.G. 1990. A controlled study of psychotherapy and amitriptyline used individually and in combination in the treatment of chronic intractable 'psychogenic pain'. Pain: 40;3-19.

Schwartz, G. *et al*. 1996. Effects of salmon calcitonin on patients with atypical (idiopathic) facial pain: a randomized controlled trial. J Orofacial Pain: 10(4); 306-315.

Sloot, M. *et al*. 2009. Higher dropout rate in non-native patients than in native patients in rehabilitation in The Netherlands. *Int. J. Rehabil Res.,* 32(3); 232-237.

Smith, J.P. 1988. Neglected patients in temporomandibular joint dysfunction reports. *J. Prothet Dent.,* 59; 78-80.

Turk, D.C. and Rudy, T.E. 1990. Neglected factors in chronic pain treatment outcome studies: referral patients, failure to enter treatment, and attrition. Pain: 43; 7-25.

Wirz, S., Wartenberg, H.C. and Wittmann, M., *et al*. 2003. Managing patients with chronic orofacial pain in the outpatient departments of dental and maxillofacial surgeons: Results of a survey. Schmerz: 17(5); 325-331.

Yatani, H., *et al*. 1997. Long-Term Follow-up Study on Drop-out TMD Patients with Self-Administered Questionnaire. *J Orofacial Pain,* 11; 258-269.

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