



An External Third Party within the Couple with Alzheimer's Disease

Emmanuelle Ballarin, Thierry Darnaud

► To cite this version:

Emmanuelle Ballarin, Thierry Darnaud. An External Third Party within the Couple with Alzheimer's Disease. HSOA journal of gerontology & geriatric medicine, 2019, 5 (4), pp.1-6. <10.24966/GGM-8662/100044>. <hal-03627523>

HAL Id: hal-03627523

<https://hal.science/hal-03627523v1>

Submitted on 1 Apr 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Research Article

An External Third Party within the Couple with Alzheimer's Disease

Ballarin E and Darnaud T*

Department of Clinical Psychology, Laboratory Clinical Pathological and Intercultural, University of Toulouse Jean Jaures, Toulouse, France

Abstract

According to the externalization concept, we think that Alzheimer's disease positions itself as an external third party within the couple and changes its members into caregiver and patient, confronting them with the psychological dilemma of "My partner lives and at the same time, he becomes someone else". The onset of Alzheimer's disease in the couple creates an imbalance and generates a redistribution of roles, which is manifested by the transition from a known system to an unknown and uncertain system. How can we support these couples affected by Alzheimer's disease? How can we support the partner who becomes a caregiver and loses meaning when his or her loved one no longer recognizes him or her as his or her spouse? How can the psychologist help the caregiver to tame this external third party? From our clinic, we defend narrative therapy for caregivers, disoriented by Alzheimer's disease, who use an externalization process as a therapeutic lever.

Keywords: Alzheimer's disease; Caregiver; Couple; Externalization process; Narrative therapy

Introduction

In accordance with systemic theory, in our practice, we consider Alzheimer's disease as a new element in the system that generates both an inter-relationship and intra-relationship disruption within the couple [1]. Depending on the past of the couple and partners, the emergence of the disease may (1) reveal the caregiver function of the partner within the couple. It will (2) promote the discovery of new skills, or (3) it will be experienced as a threat to the member of the couple designated as caregiver by the disease in function of the

*Corresponding author: Thierry Darnaud, Department of Clinical Psychology, Laboratory Clinical Pathological and Intercultural, University of Toulouse Jean Jaures, Toulouse, France, Tel: +0033 616 024 456; E-mail: darnaud@univ-tlse2.fr

Citation: Ballarin E, Darnaud T (2019) An External Third Party within the Couple with Alzheimer's Disease. J Gerontol Geriatr Med 5: 044.

Received: November 29, 2019; **Accepted:** December 24, 2019; **Published:** December 31, 2019

Copyright: © 2019 Ballarin E, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

role played within the couple. Thinking of the disease as a separate element that makes an external third party in the couple does not reduce the person to his or her diagnostic tag. This is what we call the externalization process of the disease, which results from narrative therapies [2].

This externalization process makes it possible to move from the status "he or she is sick" which refers to a single symptom to the status "he or she has a disease" which allows to recognize the patient as a person. We have chosen to call it "the external third party" to represent the feeling of strangeness it creates in the couple. Indeed, it is not uncommon to observe how family caregivers organize themselves to make it "invisible". Similarly, people diagnosed with Alzheimer's disease disagree with accusations towards them (e.g., "I didn't do it!"). There is an internal crisis between what is Me and what is not Me.

We defend the idea that by separating the illness from the person and therefore from the couple, and by naming it in the third person, it becomes possible for the assisting partner to "think" and "contextualize" the illness. Talking about the disease as a third person makes it possible to make sense of what the caregiver is observing and opens up new questions. "What does the presence of Alzheimer's cause in you? What place does it occupy in the house? or in your relationship with your loved one?"

Narrative Therapy: Externalizing the Problem

Narrative therapy is part of the systemic theory it was originally developed by M. White and D. Epston between 1970 and 1980. Unlike psychoanalysis, which interprets the patient's speech in order to categorize it according to the model of the psychic system. Narrative therapy allows the patient's stories to be reviewed through the process of deconstructing the problem [3]. Unlike the medical model or psychiatry, the narrative approach focuses on individual strength and mental health rather than pathology [4]. According to the postmodern narrative approach, psychiatric illnesses would limit the individual to symptomatic descriptions, trapped in stories saturated with problems [5].

The narrative therapist considers diseases as problems external to individuals, who must learn to cope with their problems. Create action plans in which they can work against the problem, not as part of the problem. In this way, the narrative approach aims to deconstruct the limitations forced by disease definitions. In narrative therapy, it is more important to focus on the narratives that support the problem alive than to study the origin or pathology of the problem [6]. The objective of narrative therapy through externalization problem is to develop an action plan to address this problem [3,7,8]. In this way, the person can take ownership of the problem and be motivated to act against it, rather than being trapped in stigmatized speech [8].

Externalization of the Alzheimer's disease problem

Externalization is an approach to narrative therapy that encourages people to represent themselves in concrete terms and, sometimes,

to personify the problems that plague them. During this process, the problem becomes a separate entity and therefore external to the person or relationship to whom the problem was attributed [3]. For White, by separating the problem from the person and family relationships, externalization opens the possibilities of describing oneself, in one's relationship to others, in a new perspective, not saturated by the problem. The idea is that the problem is the problem and the person is not the problem [8,9]. As far as we are concerned here, the problem is that the infiltration of Alzheimer's disease into the couple implies that the spouse becomes the caregiver of his or her life partner. When the problem is identified as the problem (the antagonist), the person is empowered, as a protagonist, to take the initiative to take creative control of the problem [4].

The externalization of the problem tells individuals that their problems are separate from themselves [8,10]. In this way, the person and their family are invited to tell/create an alternative story to the dominant one "he or she has become Alzheimer's, it's finished" but rather to look at when Alzheimer's disease forces us to be a caregiver suffering from his partner's disease and when it is less present. It also allows the person to free themselves at the individual level and to move beyond internalized oppressive ideas, habits and practices, so that a new self-definition or identity takes place [2]. However, externalization does not destroy or annihilate problems; it empowers the person to activate privileged relationships with the problem, because it is not the problem that is the problem, but the person's relationship with the problem that must be addressed [8]. In our clinic, Alzheimer's disease, which is progressive, defines the problem of relational adaptation to the loved one who is being cared for, which changes as the disease progresses.

The externalization process provides self-realization in the face of the problem's adversity rather than submission to the problem [2]. The diagnostic announcement of Alzheimer's disease creates a real tsunami for the person and their family. All the members return home with an evolving, incurable and irreversible problem. For a while, the family will organize itself to overcome the difficulties of the person with Alzheimer's disease. At first, the problem is therefore not very visible to the family, since the effects of the disease are masked or even minimized by action in the shadow of a primary caregiver [11,12]. Then, gradually, strange and bizarre behaviors will appear, the resulting feeling of disturbing strangeness, favors in most cases the exclusion of the sick subject as speaker [13]. Clinical research shows how the presence of Alzheimer's disease generates back and forth between presence to oneself and absence to oneself and similarly for the caregiver absence and presence of one's spouse [14].

The sense of continuity of existence, the permanence of the investment links of self and others are undermined and become sources of anxiety, in a clear separation of what belongs to the subject's own reality and what belongs to the external reality [14]. The person becomes "captive" of his illness, in our opinion it is as if the person was confronted with the external third party who takes place in him and had to learn to live with, just as for the person who becomes a caregiver he is forced to become familiar with this external third party.

The impact of the external third party on the couple

It is recognized that Alzheimer's disease causes a relational disturbance and invites a mutation of the conjugal bond [13,15-18]. To combat this disruption, the caregiver spouse acts as an aid, to support

the couple's homeostasis by maintaining the place and image of his or her spouse [11]. "Faced with serious illness and death, many couples find themselves faced with a trauma that disrupts their lives in its most intimate foundations, in reactive modes of survival, hyper-life, or decompensation/depression." [18]. Everything seems to indicate that the intrusion of the external third party generates both proximity movements, to the point of maintaining a relationship of emotional dependency and indifference between the partners [19] as well as movements of distance of the couple's members. Ribes and Darnaud [16] propose that in order to preserve the relational link that bonds the partners, the couple must integrate the emergence of a difference, that is, integrate the idea of a new stage.

Like a "mille-feuilles" (a French layer cake), the couple would evolve as their life experiences progress, marriage, the birth of a child, the losses, its layers would mark the stages of their history. Is the couple the same as in the beginning? Are the partners the same as at the beginning of their meeting? We know that we are not impervious to life's events. In terms of the systemic approach, the couple is a system composed of two elements and is more than the sum of its parts [20]. In this perspective, Caillé [21] proposes to define the torque according to the following arithmetic formula $1 + 1 = 3$.

What happens when the couple is affected by a disease?

Caillé [22] considers that the disease disrupts the cognitive schema of the couple, of the individual and of the society "the patient is handicapped by his illness and the partner is bound by new obligations". According to the author, the disruption of the "absolute of the couple" or conjugal myth, would depend on the function that the disease occupies in the couple. It distinguishes three types of functions:

- $1+1+1=3$: The disease creates or most often reveals relational difficulties or weak points of the "plus-one" without modifying its structure. The disease does not introduce barriers that prevent the exploration of the absolute of the couple. We will sometimes even see that the problem of the disease is quickly replaced by more painful difficulties. Disease can be one of the problems that is relatively easy to talk about more than the major problem in the relationship. In this case, we consider that the disease, by positioning itself as a third party within the couple, reveals the fragility (or dysfunction) of the couple, it is not the main object of the conflict between the partners
- $1+1=1$: The illness is given as a fundamental reason for the other partner's choice to be united. The couple relationship is essentially described as complementary between a person who needs help and another who would like to help. The disease has always held the absolute relational role within the couple, it is the cement of the couple and the partners have built links and their role according to it. In this second case, the illness becomes the essence of the conjugal bond and we believe that in this type of functioning, it will be difficult to outsource it
- $1+1+1=4$: Where "the fourth is the disease which, by the morbid seduction it secretes, jeopardizes the absolute of the couple". By its seriousness, the illness disrupts the dual relationship so much that it takes the form of a mythical character who enters the couple's intimacy. The sick partner has such an intense emotional relationship with the affection that he or she emotionally separates from the partner from whom he or she only needs trivial help. In this situation, the disease enters the couple's relationship as an

external element and damages the couple's history, turning the conjugal relationship into a caregiver-patient relationship.

All human relationships are based on a shared mental representation of their relationship. This shared mental representation is expressed, materialized, in a joint attribution of meaning to events, in a cognitive syntony. Human relationship thus means a shared model of decoding reality in at least one domain of cognition [23]. This mental representation is destabilized by the cognitive losses caused by the presence of the external third party. Indeed, the patient may sometimes, due to prosopagnosia, have false acknowledgements, and call his or her spouse, mother or father according to gender, or even no longer recognize him or her at all, or due to spatial and temporal disorientation, seek his or her spouse thirty years younger. The communication difficulties induced by the presence of the external third party destabilize the continuity of the "absolute of the couple", in fact caregivers often express the absence of communication within their couple, and the absence of return, of recognition on the part of the loved one being cared for, creating an unbalanced cycle of donation in reference to Mauss' work.

Externalization of Alzheimer's disease within the couple

Externalization of the "Alzheimer's disease" problem makes it possible to fight against the subjection to a diagnostic label where the history of individuals is frozen by the existence of the problem. This allows to avoid looking at the person only under the specter of the progression of Alzheimer's disease, but on the contrary to look at how this problem affects the couple's daily life and what action plans we can take to relieve its negative effects. For the clinical psychologist, introducing the externalization of Alzheimer's disease into his narrative makes it possible to identify where this external third party is placed in the couple system, where the caregiver is and where he or she is helped in this process of accepting Alzheimer's disease. And to identify with the caregiver the exceptional moments, i.e., the moments when there is no influence of the problem, of the external third party.

This external deconstruction of the problem allows the person to resist the description of socially constructed problems that reject the idea of having a "central self" [5]. In the case of Alzheimer's disease, the idea is to help the caregiver to link the behavior of his or her spouse who appears strange or bizarre to the presence of the external third party, as well as to put sense on his or her emotions and feelings, his or her new "caregiver" attitudes.

This allows us to open up new questions about these troubles that disturb him, to identify what his or her assisted partner is trying to say in his or her deny for example, does it mean that the place does not suit him/her? That he/she is bored? That he/she is trying to take care of? Does he/she accept that you help her/him with her grooming? Not staying on this one diagnosis opens up new hypotheses and avoids falling into the trap of excessive medication. Finally, externalization helps to identify when he or she positions himself or herself as a caregiver or sometimes as a medical of his or her partner and when he or she acts as a partner. This questioning makes it possible to draw up the problem's influence map as well as the people's influence map to identify exceptional moments [2]. We can thus remove the precipitating factors and the mitigating factors of the disorder and thus give meaning to their appearance.

Through externalization, the idea is not to move the problem, but to deconstruct it, to elucidate it. In our clinic, it is a question of naming the problem with the caregiver, not of eradicating it but on the contrary of making room for it. The therapeutic framework established on the basis of the idea of an externalization process makes it possible to talk about the caregiver's anxieties in front of his or her spouse's illness, by naming them it becomes possible to externalize them. It is possible to think of them, to highlight this external third party who changes the person being helped and effectively imposes on the caregiver to adopt new relational modalities, in order to gradually establish an action plan to preserve the relational quality.

The objective is to gradually help the couple to live with this new element that becomes a third party in the relationship. Some questions are important to take in considerations, "how to think about new ways of being together?", "how to arrange their interior, their home?", "can external help be beneficial and how?" and it will take time... each at their own pace.

Finding new life opportunities, how to co-habit with this third foreigner who is now part of the couple?

Illustration of the externalization process: Jeanne, Michel and Alzheimer

When Alzheimer's disease breaks into the couple's life, it creates a rupture with their present and opens the door to change, confronting the couple with the difference between yesterday and today and confronting them with the inevitable. Michel and Jeanne are both 82 years old and have been married for 60 years. Four years ago, "Alzheimer's has entered their house...". It is the nursing home care team that asks the psychologist to intervene because Michel is showing signs of exhaustion and does not want his wife to benefit from specific care such as day care. After a short phone conversation, Michel agreed to meet us at his home for psychological support. On the day of our first appointment, Michel waits for us on the doorstep and insists on seeing us alone first. He welcomes us into a room where he comes to recharge his batteries from time to time as he says. In this place, we discover that Michel is a man of the scene. In his private space, he confides "if I introduce you to my wife, don't say the words Alzheimer's or disease, don't talk about it in front of her, she doesn't know she's sick" and he adds "it's important for her and for us". Michel asks us not to name the object that caused our meeting in front of his wife. He can open the doors to the intimacy of his couple if we respect his rules of the game. At the same time as he gives us his rule of the game "do not to talk about Alzheimer's disease in front of Jeanne" (we will learn that this rule is announced to all professionals who work at their home) he shows us that he can name the disease in our presence in his shelter (sheltered from Jeanne); which implies that he associates the therapist's presence with the external third party as a causal relationship.

Inspired by family therapy pioneers such as J. Haley, S. Minuchin and C. Whitaker, our mission as therapist will be to use ourselves, in the here and now of the session, to make Michel and Jeanne experiment with relational alternatives, new "systemic games", and to implement the externalization of the problem in Mr. White's sense.

Sessions with the Couple

In our interviews with the couple, it is another atmosphere, installed around their dining table where the wedding photo is meticulously placed by Michel. They tell us how they meet each other, their

union, the hard times they went through together, including a long period of hospitalization of Michel "I almost died..." The tales of this painful episode helps us a little more to understand a very important couple's relational rule: "be careful not to worry the other". In these exchanges with the couple, it is impossible to think about the disease, first because naming it is forbidden to us (we have respected the rules of the game from the beginning) and neither Michel nor Jeanne expresses that there is a problem today.

Here, the couple tells each other a story, there is a kind of denial of reality caused by Alzheimer's. Would it be a problem for their game's rule if we pronounce it? When the external third party invites himself into our exchanges through omissions, repetitions or the lack of Jeanne's word, Michel amuses himself by making fun of him. "That's how I do it, as soon as my wife goes off the rails, I slowly get her back on track." And at the same time, Jeanne replies with humor, "my husband loves me you know (...) sometimes he even wants to take my place in the kitchen!" In this context, in the presence of the couple, we can only be a spectator of their relational rule "be careful not to worry the other". In this dual relationship that the psychologist will try to triangulate, by implementing a joining process, the psychologist takes the place of a witness and becomes the custodian of the couple's history, there is no place to talk about Alzheimer's disease or what will be done tomorrow, here the couple talks about the past and the manifestations of the external third party only amplify their relational game.

Sessions with Michel

We specify that during the sessions with Michel, Jeanne was in her kitchen with her living assistant. In his refuge, Michel falls the mask, his face becomes more serious, he opens the wounds of his heart, "I no longer recognize my wife, sometimes she has a fleeting look and she enters a world to which I have no access; in these moments, I see that Alzheimer's is very present and that it separates us". He shares with us his game to deal with the effects of the disease, and we help him to link what he calls "nonsense", "strange behavior", "strangeness" to the presence of what we recognize as the manifestations of the external third party in the couple.

By naming the presence of the external third party, it becomes possible for Michel to externalize the disease, so he can compare the past to the present and separate what is related to the disease from what belongs to Jeanne "she has always been an excellent cook, but now she no longer knows, she can't do it and it is me who must start cooking, at first I was mad at her... now I tell myself that it is Alzheimer's who made her like this, and that helps me to put it into perspective" or "sometimes it's her, I recognize my wife, and at other times she's absent and she becomes someone else".

Through this externalization process, Michel can (1) distance himself from facts and emotions, (2) analyze what is happening in him and (3) identify these comings and goings between Jeanne's moments of lucidity and the moments when she goes on a trip. With his words, he explains how the disease has transformed him too, "to divert Alzheimer's I play the comedy a little like Eli Kakou" (French Humorist). By naming the "unspeakable", Michel shares with us his fears about the future, especially his fear of being separated from Jeanne.

At 3 months of intervention, Michel will be able to tell us "everything was fine at home, and Alzheimer's has entered our house, at first

I tried to drive him away and I see that it is impossible, that I have to learn to live with him because he is the strongest!". Since our intervention, new professionals have joined Michel and Jeanne's house. We suppose that because it was possible for Michel to externalize the disease, it also becomes possible to make a place for "taking care of the disease" in the house.

And from the patient's side?

The externalization process is also found in the family member being cared for, Jeanne's professionals, shared that she tells them about her memory issues, she says "I have Alzheimer's". It would seem that talking about the presence of the external third party is easier when you are separated from your object of love, probably to respect the rule of the game "do not generate anxiety in your loved one".

Conclusion

This clinical experience highlights the need to invent contexts in which it becomes possible to name the disease, to think about it in order to act on it. In our view, this is fundamental to help family caregivers to move in the taming of the external third party. (Otherwise there is a risk of chaos, loss of meaning and confusion). It seems that the establishment of separation time between caregiver and patient is necessary for the implementation of the externalization process. Based on this idea, we have been developing since 2012, in collaboration with actors in the medico-social field, an intervention model that promotes this externalization process. Once a month and in different places, we organize a simultaneous meeting with the couple for two hours, they are welcomed together for a limited time, and then each one joins his group "the caregiver's one" and "the patient's one". Talking separately about what is problematic today promotes therapeutic leverage to relieve guilt, frustration in the caregiver and release affects related to the effects of the illness in the person being cared for. In total, 110 couples benefited from this model and we observed a better relationship within the caregiver/patient. These observations support our idea of creating the externalization of the disease, of making it as a third party within the couple. At first the third party is external and gradually it becomes familiar allowing everyone to say how much their bonds and feelings are.

Future Directions

Through this research, we wish to go beyond the empirical level of our observations field in order to externalize the clinically perceived effects on both the caregiver/patient couple's quality of life and their relationship. As a first step, our research will identify discriminating issues that highlight the externalization process. The aim is to create a mini questionnaire for the couple that can be used by health professionals. At a time when politicians are working towards the creation of relief facilities, encouraging the empowerment of caregivers with therapeutic education and training. We wonder how these different means / tools can influence the development of the externalization process. This work opens a field of research on the interest of using media such as images, photos or floating objects [21] to facilitate the externalization process.

References

1. Bowen M (1994) La différenciation de soi. ESF, Paris, France.
2. White M, White MK, Wijaya M, Epston, D (1990) Narrative means to therapeutic ends. Norton, New York, USA. 229.

3. White M (1991) Deconstruction and therapy. *Dulwich Centre Newsletter* 3: 21-40.
4. Semmler PL, Williams CB (2000) Narrative Therapy: A Storied Context for Multicultural Counseling. *Journal of Multicultural Counseling and Development* 28: 51-62.
5. Payne M (2006) Narrative therapy. An introduction for counselors (2nd edn). Sage, London, UK.
6. Durrant M, Kowalski K (1990) Overcoming the effects of sexual abuse: Developing a self-perception of competence. *The Narrative Therapy Library*, Singapore.
7. Drewery W, Winslade J (1997) The theoretical story of narrative therapy. In: Monk GD, Winslade J, Crocket K, Epston D (eds.). *The Jossey-Bass psychology series. Narrative therapy in practice: The archaeology of hope*. Jossey-Bass, San Francisco, USA.
8. Epston D (1998) 'Catching up' with David Epston: A collection of narrative practice-based papers published between 1991 & 1996. *Dulwich Centre Publications*, Adelaide, Australia.
9. Freedman J, Coombs G (1996) *Narrative Therapy: The Social Construction of Preferred Realities*. Norton, New York, USA. 305.
10. Morgan A (2000) What is Narrative Therapy?: An Easy-to-read Introduction. *Dulwich Centre Publications*, Adelaide, Australia. 136.
11. Myslinski M (1987) UnEdipesivivace. *Actualités Psychiatriques* 8: 50-56.
12. Darnaud T (2003) La maladie d'Alzheimer et ses victimes. In: Supérieur DB (ed.). *Cahiers critiques de thérapie familiale et de pratiques de réseaux* 31: 242.
13. Caleca C (2017) Modalités relationnelles au sein du couple âgé à l'épreuve de la maladie d'Alzheimer. *Dialogue* 216: 13-23.
14. Verdon B (2014) La maladie d'Alzheimer, entre présence et absence à soi-même. *Le Carnet PSY* 178: 45-49.
15. Bercot R (2003) *Maladie d'Alzheimer: le vécu du conjoint*. Erès, France. 136.
16. Ribes G, Darnaud T (2016) Du souvenir partagé à la mémoire implicite: une vision systémique d'une co-construction résiliente dans la constellation Alzheimer. *Cahiers critiques de thérapie familiale et de pratiques réseaux* 53: 113-130.
17. Miceli P (2016) L'attention aux émotions dans la prise en charge familiale de la maladie d'Alzheimer. *Gérontologie et société* 38: 59-72.
18. Chaban MN, Habold D (2017) La confrontation du couple à la maladie grave et à la mort. Jusqu'à la mort accompagner la vie 129: 75-88.
19. Joubert C (2003) Les fonctionnements régressifs du lien de couple, ou du collage à la rupture. *Dialogue* 161: 105-117.
20. Watzlawick P, Beavin JH, Jackson DD (1972) *Une logique de la communication*. Éditions du Seuil, Paris, France. 280.
21. Caillé P, Rey Y (2004) *Les objets flottants - Méthodes d'entretiens systémiques*. Éditions Fabert, Paris, France. 175.
22. Caillé P (2007) *Voyage ensystème-l'intervenant, les demandeurs d'aide, la formation*. Éditions Fabert, Paris, France.
23. Caillé P (2009) *Un et un font trois: le couple d'aujourd'hui et sa thérapie* (4^e éd.). FABERT, Paris, France.



Journal of Anesthesia & Clinical Care	Journal of Genetics & Genomic Sciences
Journal of Addiction & Addictive Disorders	Journal of Hematology, Blood Transfusion & Disorders
Advances in Microbiology Research	Journal of Human Endocrinology
Advances in Industrial Biotechnology	Journal of Hospice & Palliative Medical Care
Journal of Agronomy & Agricultural Science	Journal of Internal Medicine & Primary Healthcare
Journal of AIDS Clinical Research & STDs	Journal of Infectious & Non Infectious Diseases
Journal of Alcoholism, Drug Abuse & Substance Dependence	Journal of Light & Laser: Current Trends
Journal of Allergy Disorders & Therapy	Journal of Modern Chemical Sciences
Journal of Alternative, Complementary & Integrative Medicine	Journal of Medicine: Study & Research
Journal of Alzheimer's & Neurodegenerative Diseases	Journal of Nanotechnology: Nanomedicine & Nanobiotechnology
Journal of Angiology & Vascular Surgery	Journal of Neonatology & Clinical Pediatrics
Journal of Animal Research & Veterinary Science	Journal of Nephrology & Renal Therapy
Archives of Zoological Studies	Journal of Non Invasive Vascular Investigation
Archives of Urology	Journal of Nuclear Medicine, Radiology & Radiation Therapy
Journal of Atmospheric & Earth-Sciences	Journal of Obesity & Weight Loss
Journal of Aquaculture & Fisheries	Journal of Orthopedic Research & Physiotherapy
Journal of Biotech Research & Biochemistry	Journal of Otolaryngology, Head & Neck Surgery
Journal of Brain & Neuroscience Research	Journal of Protein Research & Bioinformatics
Journal of Cancer Biology & Treatment	Journal of Pathology Clinical & Medical Research
Journal of Cardiology: Study & Research	Journal of Pharmacology, Pharmaceutics & Pharmacovigilance
Journal of Cell Biology & Cell Metabolism	Journal of Physical Medicine, Rehabilitation & Disabilities
Journal of Clinical Dermatology & Therapy	Journal of Plant Science: Current Research
Journal of Clinical Immunology & Immunotherapy	Journal of Psychiatry, Depression & Anxiety
Journal of Clinical Studies & Medical Case Reports	Journal of Pulmonary Medicine & Respiratory Research
Journal of Community Medicine & Public Health Care	Journal of Practical & Professional Nursing
Current Trends: Medical & Biological Engineering	Journal of Reproductive Medicine, Gynaecology & Obstetrics
Journal of Cytology & Tissue Biology	Journal of Stem Cells Research, Development & Therapy
Journal of Dentistry: Oral Health & Cosmesis	Journal of Surgery: Current Trends & Innovations
Journal of Diabetes & Metabolic Disorders	Journal of Toxicology: Current Research
Journal of Dairy Research & Technology	Journal of Translational Science and Research
Journal of Emergency Medicine Trauma & Surgical Care	Trends in Anatomy & Physiology
Journal of Environmental Science: Current Research	Journal of Vaccines Research & Vaccination
Journal of Food Science & Nutrition	Journal of Virology & Antivirals
Journal of Forensic, Legal & Investigative Sciences	Archives of Surgery and Surgical Education
Journal of Gastroenterology & Hepatology Research	Sports Medicine and Injury Care Journal
Journal of Gerontology & Geriatric Medicine	International Journal of Case Reports and Therapeutic Studies

Submit Your Manuscript: <http://www.heraldopenaccess.us/Online-Submission.php>