Integrated Editorial Board
(Computer Science, Engineering, Medical, Management, Natural Science, Social Science)

John A. Hamilton, "Drew" Jr.,
Ph.D., Professor, Management
Computer Science and Software Engineering
Director, Information Assurance Laboratory
Auburn University

Dr. Wenying Feng
Professor, Department of Computing & Information Systems
Department of Mathematics
Trent University, Peterborough, ON Canada K9J 7B8

Dr. Thomas Wischgoll
Computer Science and Engineering, Wright State University, Dayton, Ohio
B.S., M.S., Ph.D.
(University of Kaiserslautern)

Dr. Osman Balci, Professor
Department of Computer Science
Virginia Tech, Virginia University
Ph.D. and M.S. Syracuse University, Syracuse, New York
M.S. and B.S. Bogazici University, Istanbul, Turkey

Dr. Abdurrahman Arslanyilmaz
Computer Science & Information Systems Department
Youngstown State University
Ph.D., Texas A&M University
University of Missouri, Columbia
Gazi University, Turkey

Yogita Bajpai
M.Sc. (Computer Science), FICCT
U.S.A. Email: yogita@computerresearch.org

Dr. T. David A. Forbes
Associate Professor and Range Nutritionist
Ph.D. Edinburgh University - Animal Nutrition
M.S. Aberdeen University - Animal Nutrition
B.A. University of Dublin - Zoology

Dr. Xiaohong He
Professor of International Business
University of Quinnipiac
BS, Jilin Institute of Technology; MA, MS, PhD. (University of Texas-Dallas)

Burcin Becerik-Gerber
University of Southern California
Ph.D. in Civil Engineering
DDes from Harvard University
M.S. from University of California, Berkeley & Istanbul University
Dr. Bart Lambrecht
Director of Research in Accounting and Finance Professor of Finance
Lancaster University Management School
BA (Antwerp); MPhil, MA, PhD (Cambridge)

Dr. Söhnke M. Bartram
Department of Accounting and Finance Lancaster University Management School Ph.D. (WHU Koblenz)
MBA/BBA (University of Saarbrücken)

Dr. Carlos García Pont
Associate Professor of Marketing
IESE Business School, University of Navarra
Doctor of Philosophy (Management), Massachusetts Institute of Technology (MIT)
Master in Business Administration, IESE, University of Navarra
Degree in Industrial Engineering, Universitat Politècnica de Catalunya

Dr. Miguel Angel Ariño
Professor of Decision Sciences
IESE Business School
Barcelona, Spain (Universidad de Navarra)
CEIBS (China Europe International Business School).
Beijing, Shanghai and Shenzhen
Ph.D. in Mathematics
University of Barcelona
BA in Mathematics (Licenciatura)
University of Barcelona

Dr. Fotini Labropulu
Mathematics - Luther College
University of Regina Ph.D., M.Sc. in Mathematics
B.A. (Honors) in Mathematics
University of Windsso

Philip G. Moscoso
Technology and Operations Management
IESE Business School, University of Navarra
Ph.D in Industrial Engineering and Management, ETH Zurich
M.Sc. in Chemical Engineering, ETH Zurich

Dr. Lynn Lim
Reader in Business and Marketing
Roehampton University, London
BCom, PGDip, MBA (Distinction), PhD, FHEA

Dr. Sanjay Dixit, M.D.
Director, EP Laboratories, Philadelphia VA Medical Center
Cardiovascular Medicine - Cardiac Arrhythmia
Univ of Penn School of Medicine

Dr. Mihaly Mezei
ASSOCIATE PROFESSOR
Department of Structural and Chemical Biology, Mount Sinai School of Medical Center
Ph.D., Etvs Lornd University
Postdoctoral Training, New York University

Dr. Han-Xiang Deng
MD., Ph.D
Associate Professor and Research
Department Division of Neuromuscular Medicine
Davee Department of Neurology and Clinical Neuroscience Northwestern University
Feinberg School of Medicine
Dr. Pina C. Sanelli
Associate Professor of Public Health
Weill Cornell Medical College
Associate Attending Radiologist
NewYork-Presbyterian Hospital
MRI, MRA, CT, and CTA
Neuroradiology and Diagnostic Radiology
M.D., State University of New York at Buffalo, School of Medicine and Biomedical Sciences

Dr. Roberto Sanchez
Associate Professor
Department of Structural and Chemical Biology
Mount Sinai School of Medicine
Ph.D., The Rockefeller University

Dr. Wen-Yih Sun
Professor of Earth and Atmospheric Sciences
Purdue University Director National Center for Typhoon and Flooding Research, Taiwan
University Chair Professor
Department of Atmospheric Sciences, National Central University, Chung-Li, Taiwan
University Chair Professor
Institute of Environmental Engineering, National Chiao Tung University, Hsinchu, Taiwan
Ph.D., MS The University of Chicago, Geophysical Sciences
BS National Taiwan University, Atmospheric Sciences
Associate Professor of Radiology

Dr. Michael R. Rudnick
M.D., FACP
Associate Professor of Medicine
Chief, Renal Electrolyte and Hypertension Division (PMC)
Penn Medicine, University of Pennsylvania
Presbyterian Medical Center, Philadelphia
Nephrology and Internal Medicine
Certified by the American Board of Internal Medicine

Dr. Bassey Benjamin Esu
B.Sc. Marketing; MBA Marketing; Ph.D Marketing
Lecturer, Department of Marketing, University of Calabar
Tourism Consultant, Cross River State Tourism Development Department
Co-ordinator, Sustainable Tourism Initiative, Calabar, Nigeria

Dr. Aziz M. Barbar, Ph.D.
IEEE Senior Member
Chairperson, Department of Computer Science
AUST - American University of Science & Technology
Alfred Naccash Avenue – Ashrafieh
Dr. George Perry, (Neuroscientist)
Dean and Professor, College of Sciences
Denham Harman Research Award (American Aging Association)
ISI Highly Cited Researcher, Iberoamerican Molecular Biology Organization
AAAS Fellow, Correspondent Member of Spanish Royal Academy of Sciences
University of Texas at San Antonio
Postdoctoral Fellow (Department of Cell Biology)
Baylor College of Medicine
Houston, Texas, United States

Dr. R.K. Dixit
M.Sc., Ph.D., FICCT
Chief Author, India
Email: authorind@computerresearch.org

Vivek Dubey (HON.)
MS (Industrial Engineering),
MS (Mechanical Engineering)
University of Wisconsin, FICCT
Editor-in-Chief, USA
editorusa@computerresearch.org

Sangita Dixit
M.Sc., FICCT
Dean & Chancellor (Asia Pacific)
deanind@computerresearch.org

Suyash Dixit
(B.E., Computer Science Engineering), FICCTT
President, Web Administration and Development, CEO at IOSRD
COO at GAOR & OSS

Er. Suyog Dixit
(M. Tech), BE (HONS. in CSE), FICCT
SAP Certified Consultant
CEO at IOSRD, GAOR & OSS
Technical Dean, Global Journals Inc. (US)
Website: www.suyogdixit.com
Email: suyog@suyogdixit.com

Pritesh Rajvaidya
(MS) Computer Science Department
California State University
BE (Computer Science), FICCT
Technical Dean, USA
Email: pritesh@computerresearch.org

Luis Galárraga
JIRResearch Project Leader
Saarbrücken, Germany
Contents of the Issue

i. Copyright Notice
ii. Editorial Board Members
iii. Chief Author and Dean
iv. Contents of the Issue

1. Inter-Professional Community Training and Partnerships – A View from USA Academic Nursing Students. 1-6
3. Delayed Hospital Discharges; Could Pressure Sore Incidents in Fractured Neck of Femurs Patients and Elevated Nutritional Needs be a Contributing Factor? 17-19
5. Burnout and Social Support in Bafq’s Miners. 25-31

v. Fellows
vi. Auxiliary Memberships
vii. Process of Submission of Research Paper
viii. Preferred Author Guidelines
ix. Index
Inter-Professional Community Training and Partnerships – A View from USA Academic Nursing Students

By Pamela Cromer, Anas Raed, Renata Biber, Debbie Layman, Jigar Bhagatwala, Haidong Zhu, Andrew Mazzoli, Carol Hanes, Ranjitha Krishna, Miriam Cortez-Cooper, David Thompson, Jason Hughes, Chelsey Lemons & Yanbin Dong

Augusta University

Abstract- Problem: Health promotion in underserved populations is a major emphasis among academic medical centers in the USA as they prepare the future provider workforce for community based inter-professional healthcare delivery.

Approach: This paper provides a survey report of nursing student’s response regarding their participation at an interprofessional community partnership health fair and research project (The 2015 Costa Layman Health Fair and Cardiometabolic Risks in Hispanic Farmworkers (CHARM) Study). With a full complement of inter-professional faculty and student teams, the core mission is to provide student training and to promote the health of the Hispanic farm-workers.

Keywords: health promotion/prevention, hispanics, interprofessional health teams, nursing student health fair/ CHARM study, hispanic outreach.

GJMR-K Classification: NLMC Code: WY 18.8

© 2016, Pamela Cromer, Anas Raed, Renata Biber, Debbie Layman, Jigar Bhagatwala, Haidong Zhu, Andrew Mazzoli, Carol Hanes, Ranjitha Krishna, Miriam Cortez-Cooper, David Thompson, Jason Hughes, Chelsey Lemons & Yanbin Dong. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.
Inter-Professional Community Training and Partnerships – A View from USA Academic Nursing Students

Pamela Cromer †, Anas Raed ‡, Renata Biber ‡, Debbie Layman §, Jigar Bhagatwala ¥, Haidong Zhu §, Andrew Mazzoli §, Carol Hanes §, Ranjitha Krishna §, Miriam Cortez-Cooper ‡, David Thompson §, Jason Hughes €, Chelsey Lemons £ & Yanbin Dong €

Abstract - Problem: Health promotion in underserved populations is a major emphasis among academic medical centers in the USA as they prepare the future provider workforce for community based inter-professional healthcare delivery.

Approach: This paper provides a survey report of nursing student’s response regarding their participation at an inter-professional community partnership health fair and research project (The 2015 Costa Layman Health Fair and Cardio-metabolic Risks in Hispanic Farmworkers (CHARM) Study). With a full complement of inter-professional faculty and student teams, the core mission is to provide student training and to promote the health of the Hispanic farm-workers.

Major Findings: Response themes center on core competencies and include student abilities to work collaboratively with inter-professional teams, perform a population assessment, and develop project leadership/management skills, as well as population and cultural awareness, scholarship, and health promotion contributions.

Conclusions: Community outreach and an emphasis on clinical evidence is transforming clinical practice for nursing students and generating new approaches for meeting the health care needs of disparate populations with barriers to traditional care delivery methods. This inter-professional health fair and research model promotes a sense of “community partnership” between the health delivery teams, the farmworkers, business owner and the academic university. Such partnerships become win-win situations for all.

Keywords: health promotion/prevention, hispanics, inter-professional health teams, nursing student health fair/CHARM study, hispanic outreach.

I. Introduction

In America, agriculture, a most dangerous industry, is a common employer of seasonal farmworkers, the majority of whom are Hispanic[8]. Transient employment, language barriers, cultural practices, higher levels of poverty (23%), lack of healthcare access, as well as lower literacy issues confront this population, making them an underserved population and more vulnerable to health disparity than other races[3]. Specifically, Hispanics are more likely to be overweight (70%), have a stroke (30%), and die from diabetes (40%) [6]

Driven by the USA’s national policy agendas [2,7,9], health promotion in underserved populations is a major emphasis among academic medical centers in the USA as they prepare the future provider workforce for community based inter-professional healthcare delivery. Shifting demographics and the economic burden associated with treating chronic illness and disease has propelled community partnerships that offer benefits beyond the traditional service-line model of care. Compelling evidence from the Community Preventive Services Task Force [4,5], and the American Heart Association [1], supports benefits of primary, secondary, and tertiary community based programs for cardiovascular health. Inter-professional Health Fair and Research Outreach Programs offer a mechanism to study and improve the disparity among this underserved population, in their own communities.

II. Background

Nursing education has a long tradition of caring for and educating the poor and vulnerable. Worksite health fairs, useful for health screenings are also commonplace. The Annual Costa Layman Health Fair and Cardio-metabolic Risks in Hispanic Farmworkers (CHARM) study, with a full complement of inter-professional faculty and student teams has at its core mission: “To improve the health of the people in communities we serve”. Having completed the tenth year anniversary as a comprehensive health fair screening program, and a three year IRB approved CHARM study, valuable insights into the dimensions of nursing and health scientists working together to achieve a common mission is crucial to inform academic policy and make necessary curriculum changes for community health delivery systems of the future. Inter-professional teams working closely with this nursing project include faculty and students from the
College of Medicine, College of Dentistry and Periodontal Medicine, Optometry, Georgia Prevention Institute, Premier Laboratory Services, Ryan White Community Outreach, Culturally and Linguistically Appropriate Services, GRU Cancer Center, Library Services, and Allied Health (Respiratory, Physical and Occupational Therapy Departments). An initial report on nursing student response to implementation of this project is helpful to continue to design meaningful clinical experiences and inter-professional team work.

III. Purpose

This paper provides an initial review on nursing student response to participation at an inter-professional and business partnership health fair and research project that promotes the health of uninsured/underinsured Hispanic farmworkers in the southeastern USA.

IV. Objective

To identify reported competencies gained by graduate nursing student participants at a community outreach health fair and research project (CHARM Study) for Hispanic farm-workers, 2015 summer semester.

V. Methods

Nursing students were assigned responsibilities in various teams to prepare for the health fair, including the following: Community Assessment, Patient Education, Translation, Referral Directory, Consent and Labs, and Data Entry/Analysis. In addition, all students were assigned to specific screening tasks on the day of the health fair event. At least one nursing student was assigned to each interdisciplinary screening booth at the health fair. Upon project completion, an electronic Student Survey Questionnaire, consisting of 13 items with check boxes was distributed to the twenty-one nursing students (Masters Level Clinical Nurse Leader Program) enrolled for clinical credit at the annual inter-professional Costa Layman Health Fair and Research Project at a major academic nursing college in southeast USA. Results were coded, tabulated, and graphically represented to faculty by an assigned nursing student (team leader) who was also a class member. See Table 1: Survey Questions.

Table 1: Survey Questions

VI. Results

Fifteen students completed the survey. Of these, 64.3% reported spending six to ten hours weekly preparing and organizing for this inter-professional health fair and research project. There were no student absences for clinic or class.

Identified competencies and themes of questions as well as student responses are as follows:

- Respect for scholarship and professional etiquettes appropriate to academic/community work (100%)
- Personal pride of contributions made to promote health awareness (to the farmworkers) (100%)
- A recognized need for and beginning collaboration with other inter-professional groups (100%)
- Appreciation for complex project management skills (100%)
- Cultural awareness of the Costa Layman farm community (100%)
- Ability to assess and describe the demographics of the Costa Layman farm community (100%)

Students reported, (100%), that the above acquired competencies enriched their academic experience. Overall, students reported the project to be excellent (100%), effective in improving their knowledge of population/public health (93%) and in learning useful strategies to work with disparate populations (86.7%). All students (100%) reported they would use these strategies as future health care providers and eleven out of fifteen (73.3%) thought they would use these strategies in their student roles within the next one month to six months.

The student’s reported reasons for completing the survey were: “requested by faculty” (28.5%); “for continued support of the project” (50%); and “out of respect for their team’s work” (21.4%). All students (100%), reported they believed that continued future health fair project activities are necessary.

VII. Discussion

Student training and feedback are essential components of all courses/programs and provides for clarification and critique points that inform, support, or signal a need for programmatic or project change and/or refinement. Positive response rates indicate students are favorable to the use of inter-professional health screening teams and recognize the unique skill sets required to work with disparate farmworkers, many of whom are non-English speaking. They also appreciate the cultural considerations of the population and the inter-professional etiquette and collaborations among the teams as an integral part of a successful outreach program. Because there were no answers of disagreement to survey questions, it is assumed that major changes in program/project implementation is not recommended, but further refinement and continued inter-professional team support for community health fair and research projects may enhance nursing student’s learning needs within the community.

VIII. Conclusions

Community outreach and an emphasis on clinical evidence is transforming clinical practice for
nursing students and generating new approaches for meeting the health care needs of disparate populations with barriers to traditional care delivery methods. This inter-professional health fair and research model promotes a sense of “community partnership” between the health delivery teams, the farmworkers, business owner and the academic university. Such partnerships become win-win situations and everyone benefits.

**References Références Referencias**


**Table 1**: Survey Questions

1. What is your professional degree?
   - 15 students (100%) indicated CNL Class of 2015 students

2. Indicate number of hours you spend each week in study of this course (n=14)

<table>
<thead>
<tr>
<th>Hours studied</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>more than 16 hours</td>
<td>1</td>
</tr>
<tr>
<td>11 - 15 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 - 10 hours</td>
<td>9</td>
</tr>
<tr>
<td>1 - 5 hours</td>
<td>3</td>
</tr>
<tr>
<td>Not Answered</td>
<td>1</td>
</tr>
</tbody>
</table>

3. I certify that I attended required class/clinical sessions
   - 15 students (100%) said yes
4. Name your Project Team (n=15)

5. Upon completion of this course I can now: (n=15)

   - Respect the scholarly works and professional etiquettes appropriate to academic/community partnerships: 15
   - Be proud of the 2015 contributions to provide health awareness to the Costa Layman farmworkers: 15
   - Be appreciative of some of the components of the search process associated with the CHAIM Study 2015: 15
   - See the need for and begin to work collaboratively with inter-professional groups: 15
   - Appreciate the complexities of project management: 15
   - Describe cultural factors surrounding the Costa Layman farm community: 15
   - Discuss the demographics of the Costa Layman community: 15

6. Generally speaking, items in #6 above have enriched my academic experience:

   - Yes: 13
   - Somewhat: 2
   - Not at all: 0

7. Overall Ratings: Overall this was an excellent Clinical Project:

   - Yes: 8
   - Mostly: 5
   - Somewhat: 2
   - Not at all: 0
8. Overall, this course was effective in improving my knowledge about population/public health:

9. As a result of this course, I have learned new and useful strategies in working with a “Disparate Population”

10. How likely are you to implement these new strategies in your work as a future healthcare provider?

11. When do you intend to implement these new strategies into your work as a student & future health care worker?
12. Which statement best reflects your reason for participation in this survey (n=15)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not answered</td>
<td>6.67%</td>
</tr>
<tr>
<td>Continued support of project</td>
<td>46.67%</td>
</tr>
<tr>
<td>Requested by instructor</td>
<td>26.67%</td>
</tr>
<tr>
<td>Respect of the work done by my team</td>
<td>17.65%</td>
</tr>
</tbody>
</table>

13. Future activities concerning this project are necessary (n=15)

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>9</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
</tr>
</tbody>
</table>
Amblyopie Fonctionnelle: Aspects Clinques, Thérapeutiques Et Pronostiques a Propos De 80 Patients Fonctional Amblyopia, Clinical, Therapeutic and Prognostic Aspects : 80 Cases Report

By Samia El Haouzi, Youssef Amrani, Wafae Ibrahimi, Tachfouti Samira, Samir Ahid, Ouafa Cherkaoui, Karman Abdellouahed & Rajae Daoudi

Summary- Purpose: The aim of this study was to verify if we had a good management of amblyopia and to study its clinical, therapeutic and prognostic.

Methodology: This is a retrospective study made in the service of Ophthalmology at the hospital specialties Rabat between 2000 and 2010, involving 80 patients with functional amblyopia.

Results and discussion: The average age of care was 4.68 years, the majority of children had bilateral amblyopia itself 67.5%, 48.8% of average depth. All of strabismus in our series is 91.3% and Strabismus anisometropia was the dominant etiology in our series.

In multivariate analysis: only the lateage and depth of amblyopia were the factors affecting the gain line of sight.

Indeed a delay of support for one year leads to a loss of 0.211 AV line (P = 0.041).

Keywords: amblyopia - strabismus - visual acuity- Prognostic factors.

GJMR-K Classification: NLMC Code: WB 300

Strictly as per the compliance and regulations of:
Amblyopie Fonctionnelle: Aspects Cliniques, Thérapeutiques Et Pronostiques à Propos De 80 Patients Fonctional Amblyopia, Clinical, Therapeutic and Prognostic Aspects: 80 Cases Report

Samia El Haouzi, Youssef Amrani, Wafae Ibrahimî, Tachfouti Samira, Samir Ahid, Ouafa Cherkaoui, Karman Abdellouahed & Rajae Daoudi

Résumé- But de travail: Le but de ce travail était de vérifier la qualité de prise en charge des malades présentant une amblyopie fonctionnelle en étudiant leurs aspects cliniques; thérapeutiques et pronostiques.

Méthodologie: Il s'agit d'une étude rétrospective colligée au service d'ophtalmologie A de l'hôpital des spécialités de Rabat entre 2000 et 2010, portant sur 80 patients présentant une amblyopie fonctionnelle.

Résultats et discussion: l'âge moyen de d'apparition de symptômes était de 2 ans et l'âge moyen de prise en charge était de 4,68 ans ; soit un retard de consultation de 2,68 ans, la majorité des enfants présentant une amblyopie bilatérale soit 67,5%, deprofondeur moyenne 48,8%, et Le strabisme anisométrique était l'étiologie dominante dans notre série. L'ensemble des strabismes dans notre série représente 91,3%des cas.

Nos résultats d'acuité visuelle finale étaient de 10,86/10 (toute cause confondue) avec un gain en lignes en moyenne de 4,04 (toute cause confondue).

La réussite thérapeutique est totale dans 81,3 % des cas (65 patients), partielle dans 15,0% (12 patients). L'échec est présent dans 3,8 % des cas (3 patients).

En analyse multivariée: seul le retard d'âge et la profondeur de l’amblyopie étaient les facteurs influençant le gain en ligne d’acuité visuelle. En effet un retard de prise en charge d’une année entraîne une perte de 0,211 ligne d’AV (P = 0,041).

Aux vues des données de la littérature et de notre étude, il semble donc que la prise en charge précoce contribue à une meilleure récupération de l’acuité visuelle.

Les différents auteurs sont d'accord et rapportent que la récupération d'acuité visuelle est dépendante de la profondeur de l'amblyopie initiale.

Conclusion: L’amblyopie est une urgence diagnostique et thérapeutique, son dépistage reste fondamental, dès le plus jeune âge, et son traitement, long et parfois contraignant, repose en grande partie sur la coopération et l'implication des parents, de l'enfant et des enseignants.


Summary- Purpose: The aim of this study was to verify if we had a good management of amblyopia and to study its clinical, therapeutic and prognostic.

Methodology: This is a retrospective study made in the service of Ophthalmology at the hospital specialties Rabat between 2000 and 2010, involving 80 patients with functional amblyopia.

Results and discussion: The average age of care was 4.68 years, the majority of children had bilateral amblyopia itself 67.5%, 48.8% of average depth. All of strabismus in our series is 91.3% and Strabismus anisometropia was the dominant etiology in our series.

In multivariate analysis: only the late age and depth of amblyopia were the factors affecting the gain line of sight. Indeed a delay of support for one year leads to a loss of 0.211 AV line (P = 0.041).

Our findings of final visual acuity were 10.86 / 10 (all causes) with an average gain of 4.04 lines (all causes).

The therapeutic success was total in 81.3% of cases (65 patients), partial in 15.0% (12 patients). The failure is presenting 3.8% of cases (3 patients).

In multivariate analysis: only the late age and depth of amblyopia were the factors affecting the gain line of sight.

In acute effect delayed management of one year leads to a loss of 0.211 line of AV (P = 0.041).

In view of the literature data and our study, it seems that early treatment helps Better recovery of visual acuity.

The various authors are in agreement and related whether the recovery of visual acuity is dependent on the depth of amblyopia initial.

Conclusion: Amblyopia is an urgent diagnostic is and treatment, screening is essential, from an earlyage, and treatment, long and sometimes binding, based largely on the cooperation and involvement of parents, children and teachers.

Keywords: amblyopia - strabismus - visual acuity- Prognostic factors.
1. INTRODUCTION

Les déficits visuels du jeune enfant posent un véritable problème de santé publique ; un grand nombre d'entre eux ne sont pas détectés du fait de la discrétion de la symptomatologie, de l'absence de sensibilisation du public et des Professionnels. Ils peuvent être d'origine organique, fonctionnelle ou mixte; et constituent les propos essentiels de ce travail.

En effet, L’amblyopie fonctionnelle reste pour l’ophtalmologiste et pour l’orthoptiste un sujet d’actualité permanent. On constate la grande fréquence des amblyopies négligées qui n’ont jamais fait l’objet d’aucun traitement. Et chez les sujets qui ont été soumis à diverses thérapeutiques antérieures, on note très souvent la récidive de l’amblyopie par faute de surveillance [1].

La vision binoculaire normale se développe chez l’enfant au cours de la première décennie. C’est donc à un âge précoce qu’il faut dépister les problèmes de développement de la fonction visuelle et de la binocularité, afin de mettre en œuvre une prise en charge rapide et adaptée. Le traitement de l’amblyopie repose en grande partie sur la coopération et l’implication des parents, de l’enfant et des enseignants. L’importance de ce traitement, long et parfois contraignant, doit donc être bien expliquée pour qu’il puisse être réalisé dans les meilleures conditions[2].

L’objectif de notre étude rétrospective réalisée entre Janvier 2000 et Décembre 2010 à l’hôpital de spécialités de Rabat, Maroc dans le service d’ophtalmologie A est d’évaluer la qualité de prise en charge de nos malades, évaluer des facteurs de mauvais pronostic pour éventuellement proposer des éléments supplémentaires pour améliorer la prise en charge de l’amblyopie et faire des propositions pour rendre « obligatoire le contrôle visuel sur le carnet de charge de l’amblyopie et faire des propositions pour améliorer la prise en charge des patients ayant comme motif de consultation un vice réfractif et dont l’examen a révélé une amblyopie fonctionnelle associée et dont la durée du suivi était entre 1 et 10 ans. Nous excluons de notre étude : Les amblyopies d’origine organique et les amblyopies mixtes.

Au total, 80 patients ont répondu à ces critères et ont été sélectionnés pour notre étude.

Tous nos patients ont bénéficié de d’un examen ophtalmologique initial complet: Réfraction initiale sous cycloplégie, Acuité visuelle de loin/près après port de la correction optique, et bilan orthophtique.

Différentes échelles d’acuité visuelle ont été utilisées adaptées à l’âge, à la coopération de ces enfants et leurs connaissances cognitives : L’échelle de Monoyer: images, chiffres ou lettres de Snellen.Echelle de Pigassou.


Les Traitements de l’amblyopie réalisés étaient l’Occlusion (en respectant les consignes) et le traitement chirurgical de strabisme, relayés ensuite par des occlusions alternées, filtre Ryser, et pénalisation optique.

La réussite totale du traitement est définie par l’obtention d’une isoacuité ou une différence d’acuité visuelle finale entre les deux yeux < ou égale à 1/10.

La réussite partielle est définie par une différence d’acuité visuelle finale entre les deux yeux > 3 lignes d’écart ou si l’acuité visuelle finale est égale à l’acuité visuelle initiale [4].

II. MATÉRIELS ET MÉTHODES

Il s’agit d’une étude rétrospective réalisée entre Janvier 2000 et Décembre 2010 à l’hôpital de spécialités de Rabat dans le service d’ophtalmologie A ;

Nous avons reprises les dossiers de tous les patients ayant comme motif de consultation un strabisme ou un vice réfractif et dont l’examen a révélé une amblyopie fonctionnelle associée et dont la durée du suivi était entre 1 et 10 ans. Nous excluons de notre étude : Les amblyopies d’origine organique et les amblyopies mixtes.

Au total, 80 patients ont répondu à ces critères et ont été sélectionnés pour notre étude.

Tous nos patients ont bénéficié d’un examen ophtalmologique initial complet: Réfraction initiale sous cycloplégie, Acuité visuelle de loin/près après port de la correction optique, et bilan orthoptique.

Différentes échelles d’acuité visuelle ont été utilisées adaptées à l’âge, à la coopération de ces enfants et leurs connaissances cognitives : L’échelle de Monoyer: images, chiffres ou lettres de Snellen.Echelle de Pigassou.


Les Traitements de l’amblyopie réalisés étaient l’Occlusion (en respectant les consignes) et le traitement chirurgical de strabisme, relayés ensuite par des occlusions alternées, filtre Ryser, et pénalisation optique.

La réussite totale du traitement est définie par l’obtention d’une isoacuité ou une différence d’acuité visuelle finale entre les deux yeux < ou égale à 1/10.

La réussite partielle est définie par une différence d’acuité visuelle finale entre les deux yeux > 3 lignes d’écart ou si l’acuité visuelle finale est égale à l’acuité visuelle initiale [4].

III. RÉSULTATS

Dans notre série on a constaté une légère prédominance du sexe masculin avec un sexe ratio de 1,16.

L’âge moyen de constatation des premiers symptômes était de 2ans (figure1). Par ailleurs l’âge moyen de prise en charge était de 4,68 ans. La tranche d’âge entre 2 et 4ans représentait la majeure partie des patients avec près de 40% des cas (n=80) (figure2).

En dehors de l’âge et de sexe, la prématurité représentait 2,5% des cas, et 8,8% des malades ont eu un nystagmus associé (tableau 1).

Dans notre étude, la majorité des enfants se sont présentés avec une amblyopie bilatérale soit 67,5% et l’amblyopie moyenne est la plus fréquente dans notre série soit 48,8% (légère 33,8% profonde 17,5%).

En ce qui concerne la Répartition des patients en fonction de l’étiologie de l’amblyopie nous constatons que L’ensemble des strabismes représente 91,3% des cas dont 70% sont des strabismes purs, et
21% des strabismes anisométriques alors que l’anisométrie ne représentait que 9% des cas. L’angle du strabisme était majoritairement à grand Angle dans 41% des cas, suivi des microstrabismes, et des strabismes de petit Angle dans 30% des cas (figure 3).

Nous avons comparé l’âge initial de prise en charge en fonction de l’étiologie sans retrouver de différence statistiquement significative (p=0,126) alors que notre étude retrouvait que l’amblyopie est plus profonde dans les amblyopies strabiques (pures et anisométriques) avec respectivement 57,1% et 35,7% que pour les amblyopies anisométriques. Mais les résultats ne sont pas statistiquement significatifs. (p=0,134) De même Les amblyopies découvertes tardivement sont plus profondes. Mais il n’existe pas de corrélation statistiquement significative entre les différents groupes (p=0,581).

La majorité de nos malades ont bénéficié d’une occlusion soit 93,8% dont 28,8% étaient des occlusions sauvages.

Tous les patients strabiques ont bénéficié d’une correction optique totale.77 patients ont bénéficié d’une correction optique totale soit 96,3%.

Parmi les 73 enfants strabiques 5 enfants ont été opérés (6,3%) après rééducation de l’amblyopie.

L’occlusion intermittente a constitué l’essentiel du traitement de consolidation. En effet, plus des 2/3 de nos malades ont bénéficié de ce moyen thérapeutique.

Dans notre série on a obtenu un gain en ligne d’acuité visuelle de 4,04 lignes toutes causes confondues et l’acuité visuelle finale est de 10,86/10 toutes causes confondues.

En terme de réussite, elle est totale dans 81,3 % des cas (65 patients), partielle dans 15,0% (12 patients). L’échec est présent dans 3,8 % des cas (3 patients). Pour les rechutes elles sont survenues chez 10 patients et récupérées totalement dans 9 cas, partiellement dans un cas. Par ailleurs nos bascules étaient observées pour 2 patients mais ont été récupérées totalement. Et on a eu 3 cas d’échec.

En analyse univariée le facteur associé en perte de gain est : Le retard de prise en charge et Le nystagmus. En analyse multivariée, en ajustant sur : souffrance néonatale, étiologie, et le nystagmus seul le retard de prise en charge et la profondeur de l’amblyopie étaient les facteurs influençant le gain. En effet un retard de prise d’une année entraîne une perte de 0,211 ligne d’AV (p=0,041).

En passant d’un stade à un autre de profondeur de l’amblyopie on gagne 1,9 ligne d’AV (p<0,001) ce qui est statistiquement très significatif. Tableau (2).

Dans notre étude nous n’avons pas retrouvé de corrélation statistiquement significative entre l’acuité visuelle finale et l’âge de prise en charge (p=0,168), entre l’Acuité visuelle finale en fonction de l’étiologie de l’amblyopie (p=0,571). Et entre l’Acuité visuelle finale en fonction de la profondeur de l’amblyopie : (p=0,901).

Pour la réussite du traitement il n’existait pas de différence statistiquement significative pour l’acuité visuelle finale entre les trois groupes (p=0,636), ni avec le retard de prise en charge (p=0,622) ou avec la profondeur de l’amblyopie.

Par ailleurs il existait une corrélation négative faible entre le retard de prise en charge et le gain d’acuité visuelle (p=0,041) et nous avons retrouvé une différence statistiquement significative pour le gain en lignes d’acuité visuelle en fonction du degré d’amblyopie initiale (p=0,001) (figure 4 et 5).

IV. Discussion

Nous avons comparé la population de notre étude et nos résultats aux patients inclus dans les grandes séries traitant de l’amblyopie fonctionnelle.

Différentes études ont montré sur des populations strabiques qu’il y avait une relation entre strabisme et amblyopie. Le strabisme convergent était 3 fois plus fréquent que le divergent et l’amblyopie bien plus fréquente en cas de strabisme convergent (5 à 6 fois plus) qu’en cas de strabisme divergent [6]

Les facteurs de risque du strabisme sont l’hérédité, la prématurité, les lésions neurologiques, les amétropies, les facteurs environnementaux (syndrome d’anomalies de la grossesse et de la délivrance, exposition aux toxiques in utéro ;alcool, tabac, toxicomanie…), les anomalies chromosomiques et génétiques (trisomie 21, syndrome de l’X fragile), les troubles neuromoteurs, les craniosténoses et les malformations de la face, les infections in utéro ou néonatales (Rubéole, toxoplasmose, herpès génital..) [7,8]

En général, nos résultats étaient compatibles avec les données de la littérature.

L’ensemble des strabismes représentait 91,3% des cas ; avec une fréquence plus importante des strabismes convergents 78,8%.

En accord avec la littérature Les facteurs de risque du strabisme retrouvés étaient l’hérédité présente dans 32,5% des cas, la prématurité (2,5%, soit 2 enfants), la souffrance néonatale (13,8% soit 11 enfants), le retard mental (1 patient) et la consanguinité (6,3%) [cf. tableau 1 données générales des malades] Le strabisme et l’anisométrie sont les deux principales causes d’amblyopie fonctionnelle.

Dans cette étude, nous trouvions une majorité de causes strabiques (91,3%), dont 70% de strabisme sans anisométrie associée.

Levatovsky [10] en 1995 sur 94 enfants retrouvait 85 % de causes strabiques et 59,5 % de strabisme sans anisométrie.

Clergeau [11] retrouve sur une série de 695 enfants amblyopes de 6 à 10 ans 40,2 % d’amblyopies anisométriques sans strabisme et 59,8 % d’amblyopies strabiques.

À contrario, Bowman [12, 13] en 1998, sur une série de 88 enfants retrouvait seulement 29,5 % d’amblyopie d’origine strabique sans anisométrie, associée, alors que les amblyopies anisométriques pures sans strabisme représentent 53,4 % des causes d’amblyopie fonctionnelle (14,8 % pour Levatovsky, 8,8 % dans notre série).

Attebo [14] a étudié la prévalence et les causes de l’amblyopie sur une population adulte. Il retrouve 50 % d’anisométrie isolée, 46 % de strabisme.

Dans une étude menée à Shiraz en Iran, chez 2683 écoliers avec un âge moyen 12,50 ± 3,00 ans, 2007-2008 [15], la prévalence de l’amblyopie anisométrique était de 58,1%, et 2,02 % d’amblyopie strabique.

Il apparaît ainsi que dans de plus grandes séries, la prévalence des amblyopies anisométriques est plus élevée que dans notre étude.

Nos chiffres élevés d’amblyopies strabiques par rapport aux amblyopies anisométriques s’expliquent par le biais de recrutement du centre hospitalier où le domaine de la strabologie est largement développé.

Nous pouvons également remarquer d’après nos résultats que pour la majorité de nos strabismes, il s’agit de strabisme à grand angle, pour lesquels un avis chirurgical est demandé ce qui augmente le biais de recrutement en faveur des amblyopies strabiques.

L’âge de prise en charge dans notre série, était en moyenne 4,68 ans, alors que l’âge d’apparition des premiers symptômes était en moyenne de 2 ans, soit un retard de consultation d’environ 2,5 ans [16, 17, 18].

Par ailleurs, il ressort de notre étude que l’existence ou non d’un strabisme n’a pas influencé l’âge de consultation de nos malades.

Nos données rejoignent ceux de la littérature qui donnent des âges moyens de prise en charge d’environ 5 ans [16, 17, 18]; bien que ces séries incluent plus d’amblyopies anisométriques sans strabisme.

Ceci s’explique par la difficulté d’accès aux centres spécialisés et des conditions socio-économiques basses des parents.

Pour Levatovsky et Se Youp Lee [19, 20], il n’existe pas de différence de profondeur d’amblyopie selon l’étiologie. Pour Kutschke [16], sur une série comportant uniquement des amblyopies anisométriques, il n’y a pas de différence entre les patients avec ou sans strabisme.

En accord avec la littérature, nous ne retrouvons pas une corrélation statistiquement significative entre la profondeur de l’amblyopie et l’étiologie.

En termes de récupération de l’AV après traitement de l’amblyopie fonctionnelle, les résultats varient entre 5/10 et 6,5/10 d’après les données de la littérature [73] avec un gain moyen d’acuité visuelle de 3 lignes [22, 23].

Nos résultats sont meilleurs pour l’acuité visuelle finale de l’œil amblyope puisque nos résultats d’acuité visuelle étaient de 10,86/10 (toute cause confondue) avec un gain en lignes en moyenne de 4,04 (toute cause confondue).

Dans la littérature, les résultats du traitement de l’amblyopie sont le plus souvent exprimés en acuité visuelle finale.


Nous avons retrouvé une étude ou les résultats étaient exprimés en terme de réussite par rapport à l’isoacuité: celle de Cleary [25], sur 119 enfants. La réussite était totale dans 29 % des cas, partielle dans 49 % des cas. Il y avait 22 % d’échecs.

Dans notre étude, les résultats sont meilleurs, la réussite est totale dans 81,3 % des cas (65 patients), partielle dans 15,0% (12 patients). L’échec est présent dans 3,8 % des cas (3 patients).

Nous y reviendrons dans l’analyse des échecs.

Dans notre étude nous avons étudié l’efficacité du traitement exprimée en acuité visuelle finale, en gain de lignes d’acuité visuelle et réussite (totale, partielle ou échec) [18]. Ainsi nous avons essayé d’analyser nos résultats selon différents paramètres que sont l’âge initial de prise en charge, l’étiologie de l’amblyopie, la profondeur de l’amblyopie.

La plasticité des voies visuelles est effective durant la première décennie [26], ce qui suggère que le traitement de l’amblyopie doit être entrepris chez les enfants jusqu’à l’âge de 10 ans mais les périodes de développement visuel sont d’intensité différente selon l’âge de l’enfant ce qui suppose que l’âge de début de prise en charge contribue aux résultats finaux.

Pourtant, les données de la littérature rapportent des avis divergents. En effet, durant les 5 dernières années, beaucoup d’études ont indiqué que le traitement de l’amblyopie chez les enfants en bas âge donne de bons résultats, confirmant les résultats des études rétrospectives. Plus de 75% d’enfants amblyopes dont l’âge est inférieur à 7 ans ont une amélioration significative de leur amblyopie grâce au traitement [27].

Cependant, le traitement retardé peut avoir comme conséquence un important déficit visuel.

Selon Sen et Coll, il existe un lien entre l’âge de prise en charge et l’acuité visuelle finale, mais dans la population étudiée, il y avait 65 % d’adolescents et seulement 4 % d’enfants de moins de 6 ans.
Epelbaum et latvala ML [28,29], sur une série d’enfants strabiques (407 enfants), ont montré que la récupération d’acuité visuelle était meilleure chez les enfants pris en charge avant 3 ans, et que l’efficacité du traitement diminuait après 5ans pour être inefficace vers 12 ans.

Par ailleurs de nombreux auteurs ont montré l’absence de corrélation entre l’âge initial de prise en charge et l’acuité visuelle finale [30,19,16]. Dans leurs séries, l’âge de prise en charge initial était de 5 ans en moyenne.

Dans notre série, nous n’avons pas mis en évidence de différence significative pour l’acuité visuelle finale ou de la réussite en fonction de l’âge initial de prise en charge.

Par contre, en terme de gain, il existe une différence en faveur d’une consultation précoce vu qu’un retard de prise en charge d’une année entraîne une perte de 0,211 ligne d’AV (p=0,041) (cf. tableau 4 ; gain en ligne d’acuité visuelle)

Aux vues des données de la littérature et de notre étude, il semble donc que la prise en charge précoce contribue à une meilleure récupération de l’acuité visuelle.

Les différents auteurs s’accordent pour retrouver des résultats meilleurs pour les amblyopies anisométriques que pour les strabismes [30,18,31].

Pour Cobb [30], l’acuité visuelle finale est meilleure pour les amblyopies anisométriques pures (7,2/10) que pour les anisométries strabiques (4,6/10).

Dans notre étude, nous ne retrouvons pas de différence statistiquement significative pour l’acuité visuelle finale, la réussite du traitement et gain en fonction de l’étiologie.

Néanmoins, nos résultats en terme d’acuité visuelle finale ; semblent être meilleurs pour les amblyopies réfractives (11,23/10), et les amblyopies strabiques pures (11,11/10) par rapport aux amblyopies strabiques avec anisométrie associée (9,64/10).

Les différents auteurs sont d’accord et rapportent que la récupération d’acuité visuelle est dépendante de la profondeur de l’amblyopie initiale [30,16,25,32].

Pour Woodruff [31], il s’agit même du principal facteur pronostic.

Nous avons retrouvé une différence statistiquement significative pour le gain en ligne d’acuité visuelle en fonction du degré d’amblyopie initiale ;

En effet plus l’amblyopie est profonde plus le gain d’acuité visuelle augmente (1,9 ligne d’AV par niveau de profondeur).

Nous expliquons cela par le fait que pratiquement tous nos malades ont une acuité visuelle finale élevée, par conséquent le gain en ligne d’acuité visuelle sera important dans les amblyopies profondes et aussi par la taille de l’échantillon.

Les complications de l’occlusion rapportées dans la littérature sont rares. Dans la série de Kutschke [16], une bascule a été observée chez 8 patients sur 124 avec récupération complète de l’acuité visuelle. Une surveillance régulière de l’œil non amblyope est donc nécessaire et suffisante.

Les rechutes sont survenues chez 10 patients. Elles ont été récupérées totalement dans 9 cas, partiellement dans 1 cas.

Cette complication rappelle la nécessité d’une surveillance étroite de ces patients durant toute la période de maturation des fonctions visuelles (première décennie).

D’autres auteurs [32] ont rapporté l’apparition rare d’une déviation consécutive à l’occlusion chez des patients présentant une amblyopie anisométrique isolée, par perturbation de la vision binoculaire. Pour l’éviter, il vaut mieux utiliser la pénalisation que l’occlusion. Il faut souligner que cette déviation est un bon signe de récupération de l’œil amblyope. Cette complication a été remarquée chez certains de nos malades.

Nos cas d’échecs ont été observés dans 3 cas. Il s’agissait de 3 patients avec strabismes pures, l’âge de consultation des patients se situait entre 2,5ans et 5 ans et les erreurs réfractives retrouvées étaient des hypermétropies variant de +4,50 à +13,50 sans astigmatisme associé. L’amblyopie initiale était moyenne dans 2 cas, légère dans 1 cas. Les causes d’échec retrouvées : un retard de consultation de 2,5ans pour deux malades et la mauvaise observance thérapeutique était la principale cause d’échec dans tous les cas et nous la retenons comme critère d’échec.

V. Conclusion

L’amblyopie correspond à l’existence d’une acuité visuelle réduite secondaire à une déprivation visuelle ou à des interactions binoculaires anormales.

La fréquence du suivi sera variable selon l’âge du patient et sa récupération. Ce suivi sera exigé jusqu’à l’adolescence devant le risque important de la récidive de l’amblyopie Par conséquent il faut souligner le rôle prioritaire de l’orthoptiste pour assurer le suivi en collaboration avec l’ophtalmologiste.

Dans notre série, les facteurs pronostiques influençant nos résultats thérapeutiques étaient l’âge de prise en charge et la compliance au traitement qui reste un élément clé du succès thérapeutique.

Le dépistage de l’amblyopie est fondamental, dès le plus jeune âge d’autant qu’il existe une situation à risque : strabisme, nystagmus, déprivation visuelle, anisométrie. L’amblyopie reste une urgence diagnostique et thérapeutique pour un bon pronostic et une amélioration notable de l’AV, d’où l’intérêt de
sensibiliser les pouvoirs publics à réaliser un examen ophthamologique obligatoire dès la naissance, à 9 mois, ainsi qu’un contrôle visuel préscolaire mentionné sur le carnet de santé de l’enfant à 3ans et à 5ans.

Conflicts of interests: Les auteurs déclarent ne pas avoir de conflit d’intérêts en relation avec cet article.

Légendes des Figures

Tableau 1 : Tableau résumant les données générales de nos malades

<table>
<thead>
<tr>
<th>Données Génerales</th>
<th>Nombre</th>
<th>Pourcentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexe masculin</td>
<td>43</td>
<td>53,8</td>
</tr>
<tr>
<td>Sexe féminin</td>
<td>37</td>
<td>46,3</td>
</tr>
<tr>
<td>Prématurité</td>
<td>2</td>
<td>2,5</td>
</tr>
<tr>
<td>SNN</td>
<td>11</td>
<td>13,8</td>
</tr>
<tr>
<td>Consanguinité</td>
<td>5</td>
<td>6,3</td>
</tr>
<tr>
<td>Retard mental</td>
<td>1</td>
<td>1,25</td>
</tr>
<tr>
<td>ATCD familiaux de strabisme</td>
<td>26</td>
<td>32,5</td>
</tr>
<tr>
<td>Nystagmus associé</td>
<td>7</td>
<td>8,8</td>
</tr>
</tbody>
</table>

Tableau 2 : Gain en ligne d’acuité visuelle

<table>
<thead>
<tr>
<th></th>
<th>Analyse univariée</th>
<th>Analyse multivariée</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td></td>
</tr>
<tr>
<td>Retard de prise en charge</td>
<td>-0,195</td>
<td>0,102</td>
</tr>
<tr>
<td>Profondeur de l’amblyopie</td>
<td>1,933</td>
<td>&lt;0,001</td>
</tr>
<tr>
<td>Souffrance néonatale</td>
<td>-0,275</td>
<td>0,673</td>
</tr>
<tr>
<td>Nystagmus</td>
<td>1,751</td>
<td>0,031</td>
</tr>
<tr>
<td>Etiologie</td>
<td>0,510</td>
<td>0,131</td>
</tr>
</tbody>
</table>

Figure 1 : Répartition des patients en fonction de l’âge de début des premiers symptômes

La majorité des malades ont présenté les premiers symptômes dans les deux premières années de leur vie.
Figure 2 : Répartition des patients par tranche d’âge de prise en charge

Figure 3 : Répartition des patients en fonction de l’étiologie de l’amblyopie

Figure 4 : le gain en acuité visuelle en fonction du retard de prise en charge
Références Bibliographique


15. Abbas Ali Yekta, Akbar Fotouhi, Hassan Hashemi. Department of Optometry, Mashhad University of Medical Sciences, Mashhad, Iran. Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. Strabismus, 18(3), 104–110, 2010.


This page is intentionally left blank
Delayed Hospital Discharges; Could Pressure Sore Incidents in Fractured Neck of Femurs Patients and Elevated Nutritional Needs be a Contributing Factor?

By Anahita Dehbozorgi, Dr. Majid Khan & Dr. MJH Rahmani

West Middlesex University Hospital, United Kingdom

Abstract- Background: Development of pressure ulcer (PU) during hospital admission causes morbidity and distress to the patient, places immense strain on nursing resources and delaying patient’s discharge and possibly increasing mortality rates. Fracture neck of femur (NOF) in the elderly population is recognised as a high-risk factor for development of PU.

Aims: The aim of this retrospective observational study was to analyse data to assess prevalence rates of PU development in NOF patients during hospital admission amongst the elderly population.

Methods: The data was collected from the National Hip Fracture Database (NHFD) on patients admitted with NOF between 1st April 2015 – 30th September 2015 in a Trauma and Orthopaedic Regional Centre Research Unit. East Sussex Hospital Trust.

Results: 258 patients with NOF were included in this study, predominantly females. NOF patients with PU were older and had prolonged average length of stay compared to patients with NOF without PU respectively (25.3 days Vs 19.2 days).

GJMR-K Classification: NLMC Code: WF 330, WE 175

Strictly as per the compliance and regulations of:
Delayed Hospital Discharges; Could Pressure Sore Incidents in Fractured Neck of Femurs Patients and Elevated Nutritional Needs be a Contributing Factor?

Anahita Dehbozorgi, Dr. Majid Khan & Dr. MJH Rahmani

Abstract - Background: Development of pressure ulcer (PU) during hospital admission causes morbidity and distress to the patient, places immense strain on nursing resources and delaying patient’s discharge and possibly increasing mortality rates. Fracture neck of femur (NOF) in the elderly population is recognised as a high-risk factor for development of PU.

Aims: The aim of this retrospective observational study was to analyse data to assess prevalence rates of PU development in NOF patients during hospital admission amongst the elderly population.

Methods: The data was collected from the National Hip Fracture Database (NHFD) on patients admitted with NOF between 1st April 2015 – 30th September 2015 in a Trauma and Orthopaedic Regional Centre Research Unit. East Sussex Hospital Trust.

Results: 258 patients with NOF were included in this study, predominantly females. NOF patients with PU were older and had prolonged average length of stay compared to patients with NOF without PU respectively (25.3 days Vs 19.2 days). Average body mass index (BMI) in NOF patients with PU was higher compared to patients with NOF without PU (24.45kg/m² vs. 23.4kg/m² respectively, P = 0.038). This study showed an increased incidence rate of PU in the higher age group and those with higher BMI.

Conclusions: Patients with NOF are at higher risk of malnutrition during hospital admission secondary to elevated nutritional requirements for wound healing and recovery. Therefore, authors recommend that all individuals are nutritionally screened on admission using a validated tool and commenced on appropriate nutritional support plan devised by specialist dietetic team.

I. Background

Malnutrition is defined as an imbalance of energy, protein and other macro/micronutrients, which lead to measurable adverse effects on body, physical function and clinical outcome. Although malnutrition has been associated with increased risk of falls (Lumbers et al, 2003), prolonged recovery time and account for a percentage of disability and death in the elderly population, (Hayes et al. 1996). Factors such as loss of appetite, unintentional weight loss, fatigue, depression and poor concentration levels have all been linked with malnutrition.

According to the Office of National Statistics report in 2000, the elderly population (classified as people aged over 65 years) account for 16% of the total population in the UK with an estimated rise to 20% by 2021. This population group has been identified at being at increased risk of malnutrition, with higher prevalence rates in those residing in nursing homes and those admitted to hospital. Additionally, physical abilities such as reduced mobility or being bedbound have also been associated with higher risk of malnutrition. Furthermore, BAPEN’s Nutrition Screening Week surveys (2007-11) indicated that 25-34% of patients admitted to hospital are at risk of malnutrition. Public expenditures on disease related malnutrition in UK in 2007 exceeded £13 billion. It is well established that recognising and identifying the problem is the key in order to overcome malnutrition prevalence in the acute setting. Once individuals at risk are identified, implementation of easy measures such as increased caloric intake may be enough to reverse the downward cycle and prevent further deterioration.

a) Neck of Femur Fracture (NOF), Pressure Ulcers (PU) and Malnutrition

A neck of femur fracture (NOF) is defined as a hip fracture in which the neck of the thigh bone known as femur is partially or completely broken. Conditions such as diabetes, osteomalacia and osteoporosis, rheumatoid arthritis, hyperparathyroidism and maternal history of hip fracture have all been previously associated with increased risks of NOF fractures. Nematy et al in 2006 illustrated that patients with fractured NOF were likely to be malnourished on admission and more importantly experienced significant rapid deterioration in their nutrition status during hospital admission. Dietetic intervention has also been highlighted as an integral part of patient care as fractured NOF patients continue to be in a hypermetabolic state for three months’ post-surgery which

Author α: Specialist Acute Lead Dietician, Nutrition and Dietetics Department West Middlesex University Hospital.
Author γ: Consultant Physician, Department of Health and Ageing Conquest Hospital. The Ridge, St Leonards on Sea, East Sussex TN37 7RD. e-mail: m.rahmani3@nhs.net
may lead to delayed hospital discharge, slower recovery rates or even readmission (Paillaud, et al 2000). Furthermore, Myint et al, 2012 compared the use of a ready-to-use oral nutritional supplementation (ONS) containing 18–24 g protein and 500 kcal per day in addition to hospital diet with hospital diet only in 126 patients. Results indicated a significant difference in change in BMI with a decrease of 0.25 and 0.03 kg/m² in the ONS group and 0.72 and 0.49 kg/m² in the control group at hospital discharge and follow-up, respectively (P = 0.012). The length of stay in rehabilitation ward was also shortened by 3.80 (P = 0.04) days in the ONS group.

Development of PU during hospital admission causes morbidity and distress to the patient, places immense strain on nursing resources and consequently delaying patient’s discharge and possibly increasing mortality rates. Traumas such as hip fractures in the elderly population are recognised as a high-risk factor for development of PU. According to a study by Haleem et al (2008) 3.8% of patients admitted to hospital developed PU. Factors such as increased age, diabetes mellitus, a lower mental test score, a lower mobility score were identified as contributing factors to the development of PU.

Incidence rates of between 8.8% and 55% have been so far reported. Lindholm et al (2008) showed 10% of patients had PU on admission but more importantly 22% developed PU on discharge. Furthermore, Rade-makers et al (2007) demonstrated development of PU was associated with prolonged postoperative hospital stay (19.5 vs. 11.1, p = 0.001). The National Hip Fracture database report for 2013 also showed that 3.5% of patients admitted with fractured NOF developed PU during their hospital admission. These figures have improved noticeably from 3.7% in 2012 and 6% in 2010.

Nutrition is an important aspect of a comprehensive care plan for prevention and treatment of PU (Thomas et al 1996, 1997, Pinchcofsky-Devin et al 1986), and it is of paramount importance to address nutrition in every individual with PU by ensuring patients receive adequate calories, protein, fluids, vitamins and minerals required by the body for maintaining tissue integrity and preventing tissue breakdown.

NICE guidelines (CG179), 2014 and National Pressure Ulcer Advisory Panel in 2009 suggests a dietitian or other healthcare professional with the necessary skills and competencies should nutritionally screen adults with PU. The screening should be used as a tool in order to identify those with nutritional deficiencies and provide optimum nutrition care plans in which the use of nutritional supplements may be warranted.

b) Aims
To assess prevalence rates of pressure ulcer development in fractured neck of femur patients during hospital admission amongst the elderly population.

II. Method
The information shown has been collated from data entered on to the National Hip Fracture Database (NHFD) patients admitted with a fractured hip between 1st April 2015 – 30th September 2015. BMI information was sourced from the notes and EQ/ERP data from Trauma and Orthopaedic Regional Centre Research Unit. East Sussex Hospital Trust.

III. Results
A total of 258 patients with NOF (average age of 82.3 years) were included in this study, of which 69% (178/258) were females and 31% (80/258) were males. In addition, 4% (10/258) of patients with NOF developed PU during inpatient stay with a gender distribution of 60% (6/10) females and 40% (4/10) males. The average age of patients in the NOF and PU group was 84.4 years. NOF patients with PU had prolonged average length of stay compared to patients with NOF without PU respectively (25.3 days Vs 19.2 days). Average BMI in NOF patients with PU was higher compared to patients with NOF without PU (24.45kg/m2 vs. 23.4kg/m2 respectively, P = 0.038).

IV. Discussion
Findings from analytical data showed a 4% incident rate of PU development in NOF patients at East Sussex Hospital Trust which is a similar result to the recorded 3.5% rates by the National Hip Fracture database report for 2013. Many studies so far have highlighted the increased nutritional requirements in this vulnerable group however quite often despite attempted adherence to NICE nutrition guidance, involving nutritional screening tools, care plans and protected mealtimes; acutely unwell, malnourished patients are often not receiving their estimated nutritional requirements due to lack of adequate staffing on wards or assistant and encouragement required during meal times in order to optimise nutritional intake.

This study showed PU incident rate levels were predominately seen in the slightly higher age group, which could potentially be linked to lower dietary intake secondary to factors such as poor dentition, loss of taste and smell sensation contributing to lack of appetite, cognitive impairment/dementia, impaired vision, poor dexterity and changes in gastrointestinal function leading to constipation and/or impaired nutrient absorption. Moreover, findings indicated a higher PU incident rates in patients with a slightly higher BMI, although still within healthy range (18.5-25kg/m²) as classified by WHO 2004. Two potential factors
contributing to these results may include: 1) higher nutritional requirements for energy and protein of such patients not being met as they may be perceived as individuals with healthy BMI from observation, and 2) lack of mobilisation and being bed-bound during admission post-surgery and inadequate levels of regular turning/repositioning and monitoring of PU areas.

One of the major limitations of the study includes lack of data on establishing patient’s nutritional intake during hospital admission in both groups and assessing whether estimated nutritional requirements were being met. Further studies to include other cofounding factors such as demographic data of the patients in the two groups and their predictive variables are required to confirm current findings.

V. CONCLUSIONS AND RECOMMENDATIONS

Patients with NOF are at higher risk of malnutrition during hospital admission secondary to elevated nutritional requirements for wound healing and recovery. Often due to long period of hospital admission post-surgery, factors such as reduced mobility, infections, loss of appetite and change in living environment impact patient’s dietary intake and result in inadequate nutritional intake. Patients who are bedbound and present with an overweight BMI are potentially at higher risk of developing PU during admission. However given the lack of eliminating possible cofounding factors such as patient’s actual dietary intake during hospital admission, authors conclude that correlation does not imply causation.

In order to improve nutritional status in this vulnerable group of patients authors suggest that clinicians involved in the care of fractured NOF patients with or without PU should seek to ensure that all individuals are nutritionally screened on admission using a validated tool and commenced on appropriate nutritional support plan devised by registered dietitians, which may include provision of oral nutritional supplementation (ONS) to prevent weight loss during hospitalisation for hip fracture rehabilitation and potentially reduce length of stay.

Conflict of interest: none
This page is intentionally left blank
Cutis Laxa Syndrome: Clinical and Prognosis: A New Case Report

By Samia El Haouzi, Karman Abdellouahed & Rajae Daoudi

Summary: Introduction: cutis laxa syndrome is a heterogeneous group of disorders rare elastic tissue; characterized by skin laxity associated with systemic manifestations variables. Congénital or acquired.

Case report: A 4-year-old child, the last in a family of six, from a non-consanguineous marriage. No family related cases. For hospitalized pediatric pulmonary emphysema. Addressed to: ectropion of the right lower eyelid, entropion of left lower eyelid, the conjunctiva and hypertrophied hyperhémiées. anterior segment and background of normal eye.

General examination evoked facies cutis laxa. precociously senile appearance; stretchable skin mobilizing easily malformation syndrome. In our patient the multiple organ damage and the lack of familial cases are in favor of an autosomal recessive form is poor prognosis. The patient died two weeks later in an array of respiratory failure.

Discussion: Cutis laxa (CL), or elastolysis, is a rare, inherited or acquired connective tissue disorder in which the skin becomes inelastic and hangs loosely in folds. The clinical presentation and the mode of inheritance show considerable heterogeneity. cutis laxa is a heterogeneous group of disorders clinically and genetically. Characterized by skin laxity, skin stretch, Results from various tissue abnormalities or acquired conjonctif.

Keywords: cutis laxa, genetic disease, malformation syndrome.

GJMR-K Classification: NLMC Code: QV 60, QV 75

Strictly as per the compliance and regulations of:

© 2016. Samia El Haouzi, Karman Abdellouahed & Rajae Daoudi. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.
Cutis Laxa Syndrome: Clinical and Prognosis: A New Case Report

Le Syndrome De Cutis Laxa : Clinique Et Pronostic a Propos D'un Cas

Samia El Haouzi α, Karman Abdellouahed α & Rajae Daoudi β

Résumé- Introduction: Le syndrome de cutis laxa est un groupe d'affections hétérogènes très rare du tissu élastique. Caractérisé par une hyperlaxité cutanée associée à des manifestations systémiques variables. Congénital ou acquis.

Observation: Garçon de 4 ans, dernier d'une fratrie de six, issu d'un mariage non consanguin. Pas de cas similaire familial. Hospitalisé en pédiatrie pour emphysème pulmonaire. Adressé pour : extropion de la paupière inférieure droite, entropion de la paupière inférieure gauche, conjonctives hypertrophiées et hyperhémiées.

Segment antérieur et fond d'œil normaux.

Examen général: faciès évocateur de cutis laxa. Aspect précocement sénile; Peau extensible se mobilisant facilement, Syndrome polymalformatif.

Chez notre patient l'atteinte multiviscérale ainsi que l’absence de cas familiaux sont en faveur d'une forme autosomique récessive qui est de mauvais pronostic.

Evolution: décès deux semaines plus tard dans un tableau d'insuffisance respiratoire.


Cutis Laxa congénital avec 3 formes: Autosomique dominante, Autosomique récessive, liée au chromosome X. Et Cutis Laxa acquis: secondaire soit à des affections inflammatoires de la peau, soit associé à diverses maladies (lupus, amyloidosis, multiple myeloma).

Conclusion: Affection exceptionnelle caractérisée par un polymorphisme clinique et génétique.

L’association décrite chez notre malade correspond à une forme autosomale récessive de très mauvais pronostic.

Mots clés: cutis laxa, maladie génétique, syndrome malformatif.

Summary- Introduction: cutis laxa syndrome is a heterogeneous group of disorders rare elastic tissue; Characterized by skin laxity associated with systemic manifestations variables. Congénital or acquired.

Case report: A 4-year-old chile, the last in a family of six, from a non-consanguineous marriage. No family related cases. For hospitalized pediatric pulmonary emphysema. Addressed to: ectropion of the right lower eyelid, entropion of left lower eyelid, the conjunctiva and hypertrophied hyperhémiées. anterior segment and background of normal eye.

Author α α β: Service d’ophthalmologie A, Hôpital des spécialités de Rabat, Maroc. e-mails: dr.elhaouzi.samia@gmail.com, kaman@gmail.com, daoudi@gmail.com

General examination evoked facies cutis laxa. precociously senile appearance; stretchable skin mobilizing easily malformation syndrome. In our patient the multiple organ damage and the lack of familial cases are in favor of an autosomal recessive form is poor prognosis.

The patient died two weeks later in an array of respiratory failure.

Discussion: Cutis laxa (CL), or elastolysis, is a rare, inherited or acquired connective tissue disorder in which the skin becomes inelastic and hangs loosely in folds. The clinical presentation and the mode of inheritance show considerable heterogeneity. cutis laxa is a heterogeneous group of disorders clinically and genetically. Characterized by skin laxity, skin stretch, Results from various tissue abnormalities or acquired conjonctif.

Congenital Cutis Laxa with 3 forms: autosomal dominant, autosomal recessive, and X-linked Cutis Laxa acquired: either secondary to inflammatory conditions of the skin, is associated with various diseases (lupus, amyloidosis, multiple myeloma).

Conclusion: Exceptional condition characterized by clinical and genetic polymorphism.

The association described in our patient corresponds to an autosomal recessive form of very poor prognosis.

Keywords: cutis laxa, genetic disease, malformation syndrome.

I. Introduction

C’est une maladie génétique rarissime du tissu conjonctif dont le premier symptôme évident est un relâchement cutané. En latin CUTIS LAXA veut dire PEAU RELÂCHÉE. Elle touche aussi bien les hommes que les femmes et sa fréquence est mal connue. On peut estimer cependant qu’il y a probablement moins de 1000 cas dans le monde entier.[1]

II. Observation

Garçon de 4 ans, dernier d’une fratrie de six, issu d’un mariage non consanguin. Pas de cas similaire familial. Hospitalisé en pédiatrie pour emphysème pulmonaire.

Adressé dans notre formation pour larmoiement. L’enfant n’était pas coopérant pour l’acuité visuelle.

L’examen des annexes trouvait un ectropion de la paupière inférieure droite, un entropion de la paupière...
La Cutis Laxa (mot latin pour Peau Lâche ou Relâchée) est une maladie rare du tissu conjonctif qui n’atteint qu’environ 400 familles dans le monde, soit 1 naissance sur 2000 000. Le tissu conjonctif, appelé aussi matrice extracellulaire, donne la charpente structurelle de nombreuses parties du corps comme la peau, les muscles, les articulations, les vaisseaux sanguins et même les organes internes. Le symptôme le plus évident de la Cutis Laxa est une peau ridée et pendante, spécialement sur le visage, le tronc, les bras et les jambes. La peau pend en plis et donne une apparence âgée. Il y a de nombreux types différents de Cutis Laxa, y compris une forme acquise ainsi que plusieurs formes héritées. Etant donné que la Cutis Laxa est causée par un défaut ou une déficience du tissu conjonctif, les symptômes cutanés sont aussi, et souvent, observés en conjonction avec des problèmes impliquant les systèmes respiratoire, osseux, intestinaux et cardiovasculaires. L’implication de l’un ou l’autre de ces systèmes corporels, s’il y en a une, dépend du type de Cutis Laxa et/ou de la cause génétique [2].

On décrit différents types de Cutis Laxa [3]:

La Cutis Laxa Autosomale Dominante (ADCL) :
Les symptômes de l’ADCL peuvent survenir à tout moment entre la naissance et le début de l’âge adulte. Chez certains patients, il n’existe que le symptôme de peau lâche. Cependant, certaines familles présentent également des caractéristiques faciales spécifiques concernant le nez et les yeux ainsi que des problèmes cardiovasculaires et pulmonaires tels que anévrisme aortique et emphysème. Une échocardiographie et un bilan des fonctions respiratoires sont recommandés chez ces patients afin d’identifier les complications pulmonaires et cardiaques avant qu’elles ne présentent un risque vital. Bien que la plupart des cas d’ADCL résultent de mutations sur le gène de l’élastine (ELN), il a été trouvé au moins une famille avec l’ADCL présentant une mutation du gène Fibuline-5 (FBLN5) qui est la cause de la Cutis Laxa Autosomale Récessive Type 1B (ARCL1B).

La Cutis Laxa Autosomale Récessive (ARCL) : L’ARCL est divisée en plusieurs sous-types, basés à la fois sur des symptômes spécifiques et sur le gène qui est la cause de la maladie. L’ARCL est divisée en ARCL1, ARCL2, et ARCL3, elles-mêmes divisées ensuite en sous-types additionnels :

- ARCL1A ou Cutis Laxa liée à FBLN5 (Fibuline 5) est caractérisée par une peau lâche, des hernies et une atteinte pulmonaire telle que l’emphysème et ce dès le plus jeune âge. Cependant il y a un grand degré de variabilité de l’âge d’apparition de ces symptômes, y compris au sein de la même famille. L’ARCL1A est due à des mutations sur le gène FBLN5.

- ARCL1B ou Cutis Laxa liée à FBLN4 (EFEMP2) (Fibuline 4) est caractérisée par une peau lâche associée à des symptômes impliquant d’autres organes, plus précisément le système cardiovasculaire (problèmes artériels tels que tortuosité, anévrismes, sténoses), le squelette (laxité articulaire, doigts longs et fins, hernies et fragilité osseuse) et quelques caractéristiques morphologiques impliquant le visage et la tête (petit menton, haute voute palatine, yeux très espacés). L’ARCL1B peut être très sévère avec une espérance vitale très courte après la naissance, mais elle peut également se limiter aux vaisseaux sanguins et aux caractéristiques faciales mentionnées plus haut. L’ARCL1B est due à des mutations sur le gène FBLN4 (EFEMP2).

- ARCL1C ou Cutis Laxa liée à LTBP4 est caractérisée par une peau lâche, associée à des problèmes pulmonaires, gastro-intestinaux et urinaires sévères. L’ARCL1C est aussi connue sous le nom de Syndrome Urban-Rifkin-Davis (URDS). L’ARCL1C est due à des mutations sur le gène LTBP4.

- ARCL2A ou Cutis Laxa liée à ATP6V0A2 est due à des mutations sur le gène ATP6V0A2. Les individus atteints de ce type de Cutis Laxa ont une peau ridée sur la totalité du corps qui, typiquement, s’améliore avec l’âge. Les autres caractéristiques de ces enfants incluent une fontanelle antérieure élargie, une luxation des hanches à la naissance, des hernies, et une myopie. De nombreux individus ayant cette forme de Cutis Laxa ont un retard de développement sévère et des attaques. Le Wrinkly Skin Syndrome (Syndrome de la Peau Fripée), qui entraîne une peau ridée, une tête de petite taille et un retard mental, ainsi que des problèmes musculaires et osseux est provoqué par des mutations sur le même gène ATP6V0A2.

- ARCL2B ou Cutis Laxa liée à PYCR1 est due à des mutations sur le gène PYCR1. Les signes cliniques de cette maladie comprennent une peau lâche donnant une apparence âgée, un retard de croissance, un retard de développement, des problèmes osseux et articulaires, une tête de petite taille, un grand front, un visage de forme triangulaire et de grandes oreilles.

- ARCL3 ou Syndrome De Barsy a un phénotype commun avec ARCL2A et ARCL2B. Il provoque une
Cutis Laxa avec retard de croissance, retard mental modéré à sévère, cataracte et laxité articulaire. D’autres problèmes de peau associés à la peau lâche contribuent à une apparence âgée. Typiquement, il ne présente aucun symptômes cardiovasculaires ni pulmonaires. Chez certains patients, initialement diagnostiqués avec le Syndrome De Barsy, il a été retrouvé plus tard des mutations sur les gènes PYCR1 (ARCL2B), ATP6V0A2 (ARCL2A), ou ALDH18A1.

La Cutis Laxa Acquise: La Cutis Laxa Acquise apparaît habituellement chez les adultes. Bien que sa cause soit inconnue, elle a été observée chez certains individus après certaines expositions environnementales, telles que certains médicaments, des infections ou des maladies auto-immunes. La Cutis Laxa Acquise n’est pas transmise génétiquement. Cependant, un des axes des recherches menées par le Dr Zsolt Urban est de déterminer si certains individus peuvent avoir une prédisposition génétique à développer une Cutis Laxa après certaines expositions [4].

Chez notre patient l’atteinte multiviscérale ainsi que l’absence de cas familiaux sont en faveur d’une forme autosomique récessive qui est de mauvais pronostic.

Le diagnostic clinique évident et la Biopsie cutanée: confirme le diagnostic (raréfaction des fibres élastiques); les Manifestations oculaires (forme autosomique récessive): ectropion palpebral, blépharochalasis, hypertélorisme et prolapsus de la graisse orbitaire dans l’espace sous-ténonien, entropion…

Le diagnostic de la Cutis Laxa est généralement fait par un examen de la peau réalisé par un médecin spécialiste tel que Génétiqcin ou Dermatologue. Le type spécifique de Cutis Laxa est déterminé par les symptômes associés, les informations contenues dans l’histoire familiale, et, dans certains cas, peut être confirmée par une analyse génétique. Cependant, certains patients avec ou sans identification clinique du gène causant leur Cutis Laxa, peuvent choisir de participer aux recherches menées par le Dr Zsolt Urban à l’Université de Pittsburgh. [5]

Après le diagnostic initial, les patients atteints de Cutis Laxa font des examens complémentaires au niveau cardiovasculaire et pulmonaire, tels que échocardiographie et examen des fonctions respiratoires. Il n’existe pas de traitement des causes de la maladie. Seuls peuvent être traités les symptômes associés suivant les protocoles habituels.

La prise en charge des individus atteints de Cutis Laxa inclue les traitements des symptômes, tels que interventions chirurgicales pour les hernies, des médicaments comme les bêta bloquants peuvent être considérés pour éviter l’aggravation des anévrismes aortiques, et l’empysemme pulmonaire est traité de façon symptomatique[6,7].

Un suivi régulier au niveau cardio-vasculaire et au niveau pulmonaire devrait être commencé dès la naissance ou juste après le diagnostic. Des déclencheurs environnementaux comme le tabagisme, qui peut aggraver l’empysemme, ou les bains de soleil, qui peuvent causer des dommages à la peau, doivent être évités, spécialement par les patients atteints de Cutis Laxa. Certaines personnes ayant une Cutis Laxa peuvent choisir d’avoir recours à la chirurgie réparatrice [8,9]. Bien que les résultats des opérations de chirurgie plastique soient habituellement très bons, il est possible que ces résultats ne soient pas stables dans le temps car la peau laxe peut réapparaître.

**IV. Conclusion**

Les pronostics de la Cutis Laxa varient en fonction de la forme de la maladie. Les effets peuvent être légers et certains individus ont une vie quasi normale, alors que pour d’autres la maladie peut être fatale [10].

Les formes transmises de la Cutis Laxa sont déterminées génétiquement et ne peuvent habituellement pas être prévenues. Le conseil d’un généticien peut être utile pour toute personne qui a eu un cas de Cutis Laxa dans sa famille. Les causes de la Cutis Laxa acquise ne sont pas connues et de ce fait, aucune mesure préventive ne peut être prise.

Le symptôme principal, et le plus évident, étant cutané, le retentissement psychologique de la Cutis Laxa peut être important dans les relations avec les autres. Un soutien psychologique est vivement conseillé.

**Conflit d’intérêt:**

Les auteurs déclarent ne pas avoir de conflit d’intérêts en relation avec cet article.
Légendes des Figures

Figure 1 : Ectropion de la paupière inférieure droite et entropion de la paupière inférieure gauche

Figure 2 : Multiples caries dentaires

Références Références Referencias

Burnout and Social Support in Bafq's Miners
By Mazloomy Mahmoudabad Seyyed Saeid, Ardian. Nahid, Bazm Soheila & Eslami Hadi

Abstract- Objective: Concerning the nature of mining, miners are more likely to suffer from different damages including burnout, which may damage the organization, besides its physical and mental damages to individuals. Social support and job satisfaction, on the other hand, can decrease burnout in the workplace. The present paper aims to identify the level of social support, job satisfaction and burnout among miners.

Methods: This investigation was a descriptive and analytical, cross-sectional study. 250 out of 700 miners working at Bafq's Iron Ore Mine were selected randomly to participate in this study. To collect data, Maslach Burnout Inventory (MBI) and Adolescent Family Caring Scale (AFCS), besides some items on demographic characteristics and job satisfaction were used. The collected data were analyzed using SPSS Software, version 16, operating descriptive analysis and Pearson Correlation Test, T-test, and Regression analysis.

Findings: The mean age of miners was 34.73±6.83. 90% of them were married and native residents. More than 70% of the subjects had mild emotional exhaustion and depersonalization, however, reduced sense of personal accomplishment was severe among more than 70% of workers. There was a significant correlation between burnout level and social support and its three dimensions P<0.05.

Keywords: burnout, social support, job satisfaction, miners, workers.

GJMR-K Classification: NLMC Code: WD 600
Burnout and Social Support in Bafq's Miners

Mazloomy Mahmoudabad Seyed Saeid, Ardian. Nahid, Bazm Soheila & Esami Hadi

Abstract- Objective: Concerning the nature of mining, miners are more likely to suffer from different damages including burnout, which may damage the organization, besides its physical and mental damages to individuals. Social support and job satisfaction, on the other hand, can decrease burnout in the workplace. The present paper aims to identify the level of social support, job satisfaction and burnout among miners.

Methods: This investigation was a descriptive and analytical, cross-sectional study. 250 out of 700 miners working at Bafq's Iron Ore Mine were selected randomly to participate in this study. To collect data, Maslach Burnout Inventory (MBI) and Adolescent Family Caring Scale (AFCS), besides some items on demographic characteristics and job satisfaction were used. The collected data were analyzed using SPSS Software, version 16, operating descriptive analysis and pearson Correlation Test, T-test, and Regression analysis.

Findings: The mean age of miners was 34.73±6.83. 90% of them were married and native residents. More than 70% of the subjects had mild emotional exhaustion and depersonalization, however, reduced sense of personal accomplishment was severe among more than 70% of workers. There was a significant correlation between burnout level and social support and its three dimensions (P<0.05). The social support level was good enough among over 80% of the workers, besides, more than 58% of them reported more than average job satisfaction. There was a significant correlation between job satisfaction and burnout level (P<0.05). According to linear regression analysis, house ownership and job satisfaction were the best predictors of burnout.

Conclusion: More than two third of workers had no problem in terms of burnout. Also, levels of social support and job satisfaction were more than average among over 70% of workers. However the level of personal accomplishment feelings was very low, which can be studied further.

Keywords: burnout, social support, job satisfaction, miners, workers.

I. Introduction

Work in mines is one of the most dangerous jobs, all around the world. Among different jobs, accidents, especially those leading to death, happen in mines(1). Figures showed that 10% of accidents are due to hardware problems, while 90% happen because of problems of human forces. It is proved that working in mines causes different diseases and studies revealed that miners’ life expectancy was considerably shorter than that of other worker (2). Nowadays, different mental and emotional pressures in job environment cause stress among people. Factors such as role confusion, lack of social support, and organizational changes, if continued, may lead to burnout (3). Burnout affects the individual, as well as his/her organization, and in a longer period of time may affects the society(4).

It is estimated that an average of 37 million workdays are lost due to mental disorders, neurological problems, and headache; and in many cases, burnout caused absence and workday loss (5). Scholars have defined burnout differently. Freuden Berger was the first one who defined this term in late 1960s. He had seen symptoms of exhaustion among his staffs and called it the staff burn out syndrom (6). The first one suffering from depression is the individual him/herself. Unsuitable work condition, thinking to be inefficient in the organization, lack of personal development and few opportunities to promote in the organizational hierarchy system are among factors causing burnout (7).

Burnout refers to the state of physical and mental exhaustion and lack of motivation which may causes absence, workday loss, and decrease in motivation, and in some cases leads to physical disorders and cardiovascular dysfunction (8). However, social support is introduced as a useful adjustment recourse to manage stressful circumstances in workplace and is known as a reducer of bad stressful effects of workplace (9-11). Social support refers to the interpersonal interaction with friends, colleagues, managers and other people which may include mutual, informal, automatic and useful exchanges (12). Job satisfaction is defined as the indicator of the level of interest in the job and enjoying doing that (13).

Some studies revealed that human services jobs caused burnout (15). However, it seems that research on miners, because of their hard work situation, is also possible. It is noticeable that economically, mines are part of national treasures; therefore, it is important to pay attention to miners’ physical health and mental abilities.

Concerning the importance and difficulties of mining, the factors which provide the condition for burnout in this workplace, and limited studies done in this regard particularly on miners in Iran, the hypothesis of this study was “the levels of social support and job...
satisfaction have some influences on miners’ burnout”. Therefore, it aimed at investigating levels of burnout, social support and job satisfactions among mine workers.

II. Methods

This study was a cross-sectional, descriptive, and analytical study conducted to investigate the burnout, social support and job satisfaction among miners of Bafq. Bafq is a town in Yazd Province, having several iron ore mines. The population of Bafq is around 40000, and 10000, or in other words, most of the men in the town, work in iron ore mines. Since the town is located within a desert and is far from other cities, iron ore mines are the main working opportunities for the workers.

The statistical population under investigation included all workers who had worked in mines within the last year. The sample size, based on statistical formula, was estimated as 250 workers out of 700. Then a stratified random sampling was done to select appropriate proportion of workers working in different parts of the mine.

Having the consent of mine managers and workers to fill the questionnaire and ensuring them to remain anonymous and keep the information confidential, the selected miners filled the questionnaire. Moreover, the topic of study and the questionnaire were accepted by Ethical Committee of Shahid Sadoughi University of Medical Sciences, Yazd. The questionnaire was categorized into four parts including Maslach22-item Burnout Inventory, 12-item social support questionnaire, one question on job satisfaction, and the last part contained 14 items on demographic characteristics such as age, educational level, residency, income, employment, work shift, and number of children.

Maslach Burnout Inventory (MBI) was introduced by Maslach and Jackson in 1982 to measure burnout rate(16).This inventory consisted of 22 items which measure three aspects of burnout, 9 items dealt with emotional exhaustion, 5 items measured depersonalization, and 8 items were about reduced sense of personal accomplishment. The frequencies were estimated by scores ranged from 0 to 7 (never, a few times a year, once a month or less, a few times a month, once a week, a few times a week, every day).obtained scores were divided into three categories of low, average, and high. The scoring is reported in table 2. The higher the scores of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment, the higher is the burnout level. Like other studies done in Iran(12, 17, 18), since the scores of frequency and severity were very similar and related and respondents were unable to distinguish them, The obtained scores of frequency and severity were alike; therefore, only burnout frequency is reported. The reliability of the questionnaire was confirmed according to other studies conducted in Iran (5, 19-21).

To measure perceived social support, Adolescent Family Caring Scale (AFCS) was used(22).This scale contained 12 items which measures three categories of perceived support from family (4 items), from other important people (4 items), and from friends (4 items). All the items were scored from 0 to 5 (strongly agree, agree, no idea, disagree, strongly disagree). The total score of this scale ranged from 12 to 60. In Iran, after translation of the questionnaire by Masoudnia and comments of psychologists to normalize the scale, internal reliability coefficient for three aspects were calculated, using Cronbach’s alpha(23). In the present study, the internal coefficient of questionnaire’s items, using Cronbach’s alpha were .76, .80, .85; respectively.

To measure job satisfaction level, a three-point question (1-3) (little, average, much) was used. Demographic questions were about educational level, residency, income, employment, house ownership, and work experience. The collected data were analyzed by SPSS 16, and statistical figures were explained. Finally based on data distribution, parametric tests were used, and Pearson Correlation Coefficient, Chi-Square, T-test, ANOVA, and Regression analyses were operated.

III. Results

Miners’ mean age was 34.73±6.83 .Among 250 miners working in the production section, 234 (93.6%) were male. 57 (24%) workers had primary education, 97 (40%) had Diploma, and 87 (36%) had university degrees. 215 (90%) of workers were native residents and 103 (43%) were permanent employees. 153 (64%) worked in shifts, 167 (69%) of them owned personal houses. 174 (84%) of workers had incomes less than 12 million Rials. 154 (76%) of them had two children. Concerning work experience, 26 (53%) had less than 10 years of experience. The level of workers’ burnout in terms of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment are reported in Table 1.
75% of miners had mild depersonalization and more than 72% of them had low emotional exhaustion. However reduced sense of personal accomplishment of around 70% of workers were severe. 70% of miners showed average and high job satisfaction.

Table 2: Frequency of burnout among miners according to demographic characteristics

<table>
<thead>
<tr>
<th>frequency of burnout</th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Personal Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>average</td>
<td>high</td>
</tr>
<tr>
<td>demographic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>shiftwork</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular working hour</td>
<td>19(12.9)</td>
<td>23(15.6)</td>
<td>105(71.0)</td>
</tr>
<tr>
<td>11(13.3)</td>
<td>12(14.5)</td>
<td>60(72.3)</td>
<td>5(6.1)</td>
</tr>
<tr>
<td>permanent contract</td>
<td>12(12.0)</td>
<td>16(16.0)</td>
<td>72(72.0)</td>
</tr>
<tr>
<td></td>
<td>16(12.6)</td>
<td>18(14.2)</td>
<td>93(73.2)</td>
</tr>
<tr>
<td></td>
<td>5.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16(10.5)</td>
<td>22(14.5)</td>
<td>114(75.0)</td>
</tr>
<tr>
<td></td>
<td>3.67</td>
<td>9(20.0)</td>
<td>33(73.3)</td>
</tr>
<tr>
<td></td>
<td>7(21.2)</td>
<td>34(75.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27(15.7)</td>
<td>4(8.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9(12.9)</td>
<td>7(10.0)</td>
<td>54(77.1)</td>
</tr>
<tr>
<td></td>
<td>1(1.4)</td>
<td>16(22.9)</td>
<td>63(75.7)</td>
</tr>
<tr>
<td></td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20(12.0)</td>
<td>23(13.9)</td>
<td>123(74.1)</td>
</tr>
<tr>
<td></td>
<td>117(73.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22(13.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21(13.1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|                      | 2016 Global Journal of Medical Research (K) Volume XVI Issue IV Version 1 Year 2016 © 2016 Global Journals Inc. (US)
Table 3: Correlation Coefficient between three aspects of burnout and three aspects of social support and job satisfaction

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimensions of Burnout, Social Support, job satisfaction</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Emotional Exhaustion</td>
<td></td>
<td>r=0.677**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Depersonalization</td>
<td></td>
<td></td>
<td>r=-0.332**</td>
<td>r=-0.206**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Personal Accomplishment</td>
<td></td>
<td></td>
<td></td>
<td>r= 0.194*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Friend support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r= -0.347**</td>
<td>r= -0.308**</td>
<td>r= 0.224**</td>
</tr>
<tr>
<td>5 Family support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r= -0.199*</td>
<td>r= 0.196**</td>
</tr>
<tr>
<td>6 Other support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r= 0.136*</td>
</tr>
<tr>
<td>7 Job satisfaction</td>
<td><strong>r = -0.531</strong></td>
<td>r= -0.341**</td>
<td>r= 0.438**</td>
<td>r= 0.232**</td>
<td>r= 0.136**</td>
<td>r= 0.377**</td>
<td></td>
</tr>
</tbody>
</table>

The burnout level significantly and negatively correlates with three dimensions of social support and job satisfaction. This correlation was negative that is, the more social support and job satisfaction levels, the less was burnout level.

The relationship between depersonalization and social support and job satisfaction was significantly negative. However reduced sense of personal accomplishment correlate with job satisfaction and social support, significantly and positively.

Table 4: Linear regression analysis between three aspects of burnout and job satisfaction and predictor variables

<table>
<thead>
<tr>
<th></th>
<th>(Constant)</th>
<th>Emotional exhaustion</th>
<th>Depersonalization</th>
<th>Personal accomplishment</th>
<th>Job satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend Support</td>
<td>-0.056</td>
<td>-0.188</td>
<td>-0.065</td>
<td>0.230*</td>
<td>-0.013</td>
</tr>
<tr>
<td>Family Support</td>
<td>-0.179</td>
<td>-0.147</td>
<td>0.230*</td>
<td>0.080</td>
<td>-0.008</td>
</tr>
<tr>
<td>Others Support</td>
<td>-0.688</td>
<td>-1.070**</td>
<td>0.230*</td>
<td>0.230**</td>
<td>0.255**</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-3.912**</td>
<td>-1.070**</td>
<td>0.230**</td>
<td>0.230**</td>
<td>0.255**</td>
</tr>
</tbody>
</table>

Based on results of regression analysis, job satisfaction was the best predictors of emotional exhaustion and depersonalization levels. The Reduced sense of personal accomplishment were predicted better by job satisfaction and family support. (Table 4)

IV. Discussion

Based on the findings, mild emotional exhaustion and depersonalization and severe reduced-sense of personal accomplishment were shown among miners which was different from some studies (5, 24, 25) and in accordance with some other (6, 12, 21, 26, 27). Although working in offices and organizations in big cities leads to sever burnout (24, 25), it seemed that the low level of burnout among 70% of miners is due to cultural, economic, and social characteristics of the majority of workers which caused low burnout in terms of emotional exhaustion and depersonalization, since similarity in economic and social basis of native workers leads to less conflict and tensions and consequently less emotional exhaustion and depersonalization. Experts believe that average and severe emotional exhaustion relates to the role conflict and interpersonal conflicts (6). However, in accordance with other studies, in this study reduced sense of personal accomplishment were severe (6, 12, 27), these feelings are revealed by lower efficiency and job dissatisfaction, feelings of failure, losing recognition and understanding ability. Success and domination are achieved when the individual can affect the policies of the respective organization, and therefore, show his/her capabilities and will take positive attitudes toward himself/herself and clients (25). It seemed that in this paper, based on the results, lack of positive attitude and feelings of effectiveness in the policy making process of the organization led to lower sense of personal accomplishment. Contrary to some studies in which the higher level of education resulted in lower burnout level (24, 25, 28).
In accordance with another study(29), in the present study, there was no significant difference between miners’ educational levels and burnout levels. However, the mean score of depersonalization was significantly different from their educational level. Depersonalization refers to the mental detachment from one’s occupation(30). It can be said that this detachment and negative reaction lessened as the educational level increased. However, since 75% of the workers had associated degree or less. Maybe because of the relative similarity in the educational levels of most of the miners, mean scores of emotional exhaustion and reduced sense of personal accomplishment were not significantly different from educational levels.

Mean scores of emotional exhaustion and the miners’ work experience were not significantly different. However, greater percentage of workers with less than 10 years of experience, had lower burnout. This finding was different from some other studies’(5, 16, 31, 32) but showed that there was no significant difference between work experience and total burnout scale. Probably, factors other than work experience affected the burnout level of the workers studied(30).

In accordance with other studies, the difference between income level and mean score of burnout was not significant(5, 26, 33). It seemed that income level did not cause higher levels of burnout among the miners, since the income of most of them were similar to each other. While the minimum wage of workers in Iran, determined by the Supreme Labor Council, was 4,300,000 Rials, more than 80% of the workers received between 8,000,000 to 12,000,000 Rilas.

Probably, native workers, considering the living environment in Bafq and relative income satisfaction, were far from severing burnout. Those who had great expectations and got a job full of motivation, hopes and ideals are more likely to suffer burnout(33).

As the results showed, 64% of the workers under study worked in shifts and 67% of them were contract employees. Although in some studies the working condition affected burnout (34) in the present study, no significant relationship was seen between the mean score of burnout and type of employment (permanent, contract) and type of working (shift working, regular working hour). It may be said that other factors, different from type of employment and work, influenced the workers’ burnout.

House ownership at the native residents’ point of view is very important, which includes 90% of the workers in Bafq. The effect of house ownership in burnout was shown in this study and those who had a private house experienced lower burnout. Probably, workers in the small traditional town of Bafq, by adherence to their traditions, had less dissatisfaction and burnout. Burnout can be correlated with type of job, job satisfaction and also social life and personal relationship (35, 36)

Around 75% of the miners had average to high job satisfaction and there was negatively significant correlation between job satisfaction and burnout. The negative correlation of job satisfaction and burnout was also reported by other researchers(4, 11). Concerning different factors which make working in mines susceptible to burnout, job satisfaction leads to less burnout among the workers under study.

Although some studies did not find any relationships between social support and burnout(13, 37), the present study showed the significantly negative correlation of social support with emotional exhaustion and depersonalization. This result showed in other studies (29, 38-40) and significantly positive correlation of social support with lack of sense of personal accomplishments, that is, the more the social support in the family, the more was the sense of personal accomplishments(11, 28, 41). Bataineh said that designing support systems are one of the most important factors which increase individuals’ resistance against burnout. In fact, Bataineh believed that strong support systems were the bases of professional and occupational promotion in the workplace, and these systems reduce the sensitivity of individuals to burnout, quitting and changing the job(35). One of the best methods to confront psychological pressure is looking for support from reliable members of belonging colleagues, family or social group(9, 42). The present study revealed that job satisfaction was the best predictors of burnout; however the determining role of job satisfaction in three aspects of burnout was noticeable.

Limitations of the study: one of the shortcomings of the study refers to the similarity of the samples. Most of them were native residents and their demographic characteristics were relatively similar. This may reduce the generalizability of the results. Besides, since job satisfaction is an important factor in determining the burnout level, other studies can be done on it using more valid and standard questionnaires to investigate that.

V. Conclusion

In general, it can be said that relatively lower levels of emotional exhaustion and depersonalization among the workers depends on the environment and social conditions, as well as working conditions. Accordingly, Miners in Bafq had appropriate condition in terms of social support and job satisfaction and consequently lower burnout. However, the low level of the sense of personal accomplishment should be studied further.

VI. Acknowledgement

This study was financially supported by Iran Central Iron Ore Company. We would like to thank all the
workers and managers of the company who helped us a lot in conducting this study.

References Références Referencias

25. Rafii F. XML Relationship between the usage of coping strategies and burnout as well as comparison of these variables among staff and practical nurses employed in burn and reconstructive hospitals of Tehran (1993). 1996.
26. Mirabzadeh A, IRANI S, Samiei M, FEYZZADEH G. Burnout and It's Effective Factors Among the


35. Bataineh O. Sources of Social Support among Special Education Teachers in Jordan and Their Relationship to Burnout. International Education. 2009; 39(1).


42. Lawrence SA, Gardner J, Callan VJ. The support appraisal for work stressors inventory: construction and initial validation. Journal of Vocational Behavior. 2007; 70(1): 172-204.
FELLOWS

FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN MEDICAL (FARSM)

Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards “FARSM” title to individuals. The ‘FARSM’ title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.

The “FARSM” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall Ph.D., FARSS or William Walldroff, M.S., FARSM.

FARSM accrediting is an honor. It authenticates your research activities. After recognition as FARSM, you can add 'FARSM' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, and Visiting Card etc.

The following benefits can be availed by you only for next three years from the date of certification:

FARSM designated members are entitled to avail a 40% discount while publishing their research papers (of a single author) with Global Journals Incorporation (USA), if the same is accepted by Editorial Board/Peer Reviewers. If you are a main author or co-author in case of multiple authors, you will be entitled to avail discount of 10%.

Once FARSM title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA). The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent.

You may join as member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. In addition, it is also desirable that you should organize seminar/symposium/conference at least once.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.
The FARSM can go through standards of OARS. You can also play vital role if you have any suggestions so that proper amendment can take place to improve the same for the benefit of entire research community.

As FARSM, you will be given a renowned, secure and free professional email address with 100 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.

The FARSM will be eligible for a free application of standardization of their researches. Standardization of research will be subject to acceptability within stipulated norms as the next step after publishing in a journal. We shall depute a team of specialized research professionals who will render their services for elevating your researches to next higher level, which is worldwide open standardization.

The FARSM member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.

Once you are designated as FARSM, you may send us a scanned copy of all of you credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website https://associationofresearch.org which will be helpful to upgrade the dignity.

The FARSM members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.

The FARSM member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.
The FARSM is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSS can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSM member can decide its price and we can help in making the right decision.

The FARSM member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.

MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN MEDICAL (MARSIM)

The 'MARSIM' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The “MARSIM” is a dignified ornament which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., MARSIM or William Walldroff, M.S., MARSIM.

MARSIM accrediting is an honor. It authenticates your research activities. After becoming MARSIM, you can add 'MARSIM' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

The following benefits can be availed by you only for next three years from the date of certification.

MARSIM designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSIM, you will be given a renowned, secure and free professional email address with 30 GB of space e.g., johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.

© Copyright by Global Journals Inc.(US) | Guidelines Handbook
We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSM member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.

Once you are designated as MARSM, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.
Auxiliary Memberships

Institutional Fellow of Open Association of Research Society (USA) - OARS (USA)

Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as “Institutional Fellow of Open Association of Research Society” (IFOARS).

The “FARSC” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.

The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as “Institutional Board of Open Association of Research Society”-(IBOARS).

The Institute will be entitled to following benefits:

The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA)

The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.

The author fees of such paper may be waived off up to 40%.

The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.

The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of “Open Association of Research Society, U.S.A (OARS)“ so that proper amendment can take place for the benefit of entire research community.

We shall provide details of particular standard only on receipt of request from the Board.

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.
We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

After nomination of your institution as “Institutional Fellow” and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf. The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.

Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.

We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth $2376 USD.

Other:

The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.
In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10% discount if one is co-author or main author among group of authors.

- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in–depth understanding of the application of suitable techniques to a particular area of research practice.

Note:

In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.

In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.

In case of “Difference of Opinion [if any]” among the Board members, our decision will be final and binding to everyone.
Process of Submission of Research Paper

The Area or field of specialization may or may not be of any category as mentioned in ‘Scope of Journal’ menu of the GlobalJournals.org website. There are 37 Research Journal categorized with Six parental Journals GJCST, GJMR, GJRE, GJMBR, GJSFR, GJHSS. For Authors should prefer the mentioned categories. There are three widely used systems UDC, DDC and LCC. The details are available as ‘Knowledge Abstract’ at Home page. The major advantage of this coding is that, the research work will be exposed to and shared with all over the world as we are being abstracted and indexed worldwide.

The paper should be in proper format. The format can be downloaded from first page of ‘Author Guideline’ Menu. The Author is expected to follow the general rules as mentioned in this menu. The paper should be written in MS-Word Format (*.DOC, *.DOCX).

The Author can submit the paper either online or offline. The authors should prefer online submission. Online Submission: There are three ways to submit your paper:

(A) (I) First, register yourself using top right corner of Home page then Login. If you are already registered, then login using your username and password.

   (II) Choose corresponding Journal.

   (III) Click ‘Submit Manuscript’. Fill required information and Upload the paper.

(B) If you are using Internet Explorer, then Direct Submission through Homepage is also available.

(C) If these two are not convenient, and then email the paper directly to dean@globaljournals.org.

Offline Submission: Author can send the typed form of paper by Post. However, online submission should be preferred.
MANUSCRIPT STYLE INSTRUCTION (Must be strictly followed)

Page Size: 8.27” X 11”

- Left Margin: 0.65
- Right Margin: 0.65
- Top Margin: 0.75
- Bottom Margin: 0.75
- Font type of all text should be Swis 721 Lt BT.
- Paper Title should be of Font Size 24 with one Column section.
- Author Name in Font Size of 11 with one column as of Title.
- Abstract Font size of 9 Bold, “Abstract” word in Italic Bold.
- Main Text: Font size 10 with justified two columns section
- Two Column with Equal Column with of 3.38 and Gaping of .2
- First Character must be three lines Drop capped.
- Paragraph before Spacing of 1 pt and After of 0 pt.
- Line Spacing of 1 pt
- Large Images must be in One Column
- Numbering of First Main Headings (Heading 1) must be in Roman Letters, Capital Letter, and Font Size of 10.
- Numbering of Second Main Headings (Heading 2) must be in Alphabets, Italic, and Font Size of 10.

You can use your own standard format also.

Author Guidelines:

1. General,
2. Ethical Guidelines,
3. Submission of Manuscripts,
4. Manuscript’s Category,
5. Structure and Format of Manuscript,
6. After Acceptance.

1. GENERAL

Before submitting your research paper, one is advised to go through the details as mentioned in following heads. It will be beneficial, while peer reviewer justify your paper for publication.

Scope

The Global Journals Inc. (US) welcome the submission of original paper, review paper, survey article relevant to the all the streams of Philosophy and knowledge. The Global Journals Inc. (US) is parental platform for Global Journal of Computer Science and Technology, Researches in Engineering, Medical Research, Science Frontier Research, Human Social Science, Management, and Business organization. The choice of specific field can be done otherwise as following in Abstracting and Indexing Page on this Website. As the all Global
Journals Inc. (US) are being abstracted and indexed (in process) by most of the reputed organizations. Topics of only narrow interest will not be accepted unless they have wider potential or consequences.

2. ETHICAL GUIDELINES

Authors should follow the ethical guidelines as mentioned below for publication of research paper and research activities.

Papers are accepted on strict understanding that the material in whole or in part has not been, nor is being, considered for publication elsewhere. If the paper once accepted by Global Journals Inc. (US) and Editorial Board, will become the copyright of the Global Journals Inc. (US).

Authorship: The authors and coauthors should have active contribution to conception design, analysis and interpretation of findings. They should critically review the contents and drafting of the paper. All should approve the final version of the paper before submission.

The Global Journals Inc. (US) follows the definition of authorship set up by the Global Academy of Research and Development. According to the Global Academy of R&D authorship, criteria must be based on:

1) Substantial contributions to conception and acquisition of data, analysis and interpretation of the findings.
2) Drafting the paper and revising it critically regarding important academic content.
3) Final approval of the version of the paper to be published.

All authors should have been credited according to their appropriate contribution in research activity and preparing paper. Contributors who do not match the criteria as authors may be mentioned under Acknowledgement.

Acknowledgements: Contributors to the research other than authors credited should be mentioned under acknowledgement. The specifications of the source of funding for the research if appropriate can be included. Suppliers of resources may be mentioned along with address.

Appeal of Decision: The Editorial Board’s decision on publication of the paper is final and cannot be appealed elsewhere.

Permissions: It is the author’s responsibility to have prior permission if all or parts of earlier published illustrations are used in this paper.

Please mention proper reference and appropriate acknowledgements wherever expected.

If all or parts of previously published illustrations are used, permission must be taken from the copyright holder concerned. It is the author’s responsibility to take these in writing.

Approval for reproduction/ modification of any information (including figures and tables) published elsewhere must be obtained by the authors/copyright holders before submission of the manuscript. Contributors (Authors) are responsible for any copyright fee involved.

3. SUBMISSION OF MANUSCRIPTS

Manuscripts should be uploaded via this online submission page. The online submission is most efficient method for submission of papers, as it enables rapid distribution of manuscripts and consequently speeds up the review procedure. It also enables authors to know the status of their own manuscripts by emailing us. Complete instructions for submitting a paper is available below.

Manuscript submission is a systematic procedure and little preparation is required beyond having all parts of your manuscript in a given format and a computer with an Internet connection and a Web browser. Full help and instructions are provided on-screen. As an author, you will be prompted for login and manuscript details as Field of Paper and then to upload your manuscript file(s) according to the instructions.
To avoid postal delays, all transaction is preferred by e-mail. A finished manuscript submission is confirmed by e-mail immediately and your paper enters the editorial process with no postal delays. When a conclusion is made about the publication of your paper by our Editorial Board, revisions can be submitted online with the same procedure, with an occasion to view and respond to all comments.

Complete support for both authors and co-author is provided.

4. MANUSCRIPT’S CATEGORY

Based on potential and nature, the manuscript can be categorized under the following heads:

Original research paper: Such papers are reports of high-level significant original research work.

Review papers: These are concise, significant but helpful and decisive topics for young researchers.

Research articles: These are handled with small investigation and applications

Research letters: The letters are small and concise comments on previously published matters.

5. STRUCTURE AND FORMAT OF MANUSCRIPT

The recommended size of original research paper is less than seven thousand words, review papers fewer than seven thousands words also. Preparation of research paper or how to write research paper, are major hurdle, while writing manuscript. The research articles and research letters should be fewer than three thousand words, the structure original research paper; sometime review paper should be as follows:

Papers: These are reports of significant research (typically less than 7000 words equivalent, including tables, figures, references), and comprise:

(a) Title should be relevant and commensurate with the theme of the paper.

(b) A brief Summary, “Abstract” (less than 150 words) containing the major results and conclusions.

(c) Up to ten keywords, that precisely identifies the paper’s subject, purpose, and focus.

(d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.

(e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.

(f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refered;

(g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.

(h) Brief Acknowledgements.

(i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.
The Editorial Board reserves the right to make literary corrections and to make suggestions to improve briefness.

It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

Format

Language: The language of publication is UK English. Authors, for whom English is a second language, must have their manuscript efficiently edited by an English-speaking person before submission to make sure that, the English is of high excellence. It is preferable, that manuscripts should be professionally edited.

Standard Usage, Abbreviations, and Units: Spelling and hyphenation should be conventional to The Concise Oxford English Dictionary. Statistics and measurements should at all times be given in figures, e.g. 16 min, except for when the number begins a sentence. When the number does not refer to a unit of measurement it should be spelt in full unless, it is 160 or greater.

Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than 1.4 × 10⁻³ m³, or 4 mm somewhat than 4 × 10⁻³ m. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

Structure

All manuscripts submitted to Global Journals Inc. (US), ought to include:

Title: The title page must carry an instructive title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) wherever the work was carried out. The full postal address in addition with the e-mail address of related author must be given. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining and indexing.

Abstract, used in Original Papers and Reviews:

Optimizing Abstract for Search Engines

Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art. A few tips for deciding as strategically as possible about keyword search:
One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.

It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.

One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author’s name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

The Editorial Board and Global Journals Inc. (US) recommend that, citation of online-published papers and other material should be done via a DOI (digital object identifier). If an author cites anything, which does not have a DOI, they run the risk of the cited material not being noticeable.

The Editorial Board and Global Journals Inc. (US) recommend the use of a tool such as Reference Manager for reference management and formatting.

Tables, Figures and Figure Legends

Tables: Tables should be few in number, cautiously designed, uncrowded, and include only essential data. Each must have an Arabic number, e.g. Table 4, a self-explanatory caption and be on a separate sheet. Vertical lines should not be used.

Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

Preparation of Electronic Figures for Publication

Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution (at final image size) ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs) : >350 dpi; figures containing both halftone and line images: >650 dpi.
Color Charges: It is the rule of the Global Journals Inc. (US) for authors to pay the full cost for the reproduction of their color artwork. Hence, please note that, if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a color work agreement form before your paper can be published.

Figure Legends: Self-explanatory legends of all figures should be incorporated separately under the heading ‘Legends to Figures’. In the full-text online edition of the journal, figure legends may possibly be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should notify the reader, about the key aspects of the figure.

6. AFTER ACCEPTANCE

Upon approval of a paper for publication, the manuscript will be forwarded to the dean, who is responsible for the publication of the Global Journals Inc. (US).

6.1 Proof Corrections

The corresponding author will receive an e-mail alert containing a link to a website or will be attached. A working e-mail address must therefore be provided for the related author.

Acrobat Reader will be required in order to read this file. This software can be downloaded (Free of charge) from the following website:

www.adobe.com/products/acrobat/readstep2.html. This will facilitate the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof.

Proofs must be returned to the dean at dean@globaljournals.org within three days of receipt.

As changes to proofs are costly, we inquire that you only correct typesetting errors. All illustrations are retained by the publisher. Please note that the authors are responsible for all statements made in their work, including changes made by the copy editor.

6.2 Early View of Global Journals Inc. (US) (Publication Prior to Print)

The Global Journals Inc. (US) are enclosed by our publishing's Early View service. Early View articles are complete full-text articles sent in advance of their publication. Early View articles are absolute and final. They have been completely reviewed, revised and edited for publication, and the authors’ final corrections have been incorporated. Because they are in final form, no changes can be made after sending them. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so Early View articles cannot be cited in the conventional way.

6.3 Author Services

Online production tracking is available for your article through Author Services. Author Services enables authors to track their article - once it has been accepted - through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The authors will receive an e-mail with a unique link that enables them to register and have their article automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript.

6.4 Author Material Archive Policy

Please note that if not specifically requested, publisher will dispose off hardcopy & electronic information submitted, after the two months of publication. If you require the return of any information submitted, please inform the Editorial Board or dean as soon as possible.

6.5 Offprint and Extra Copies

A PDF offprint of the online-published article will be provided free of charge to the related author, and may be distributed according to the Publisher’s terms and conditions. Additional paper offprint may be ordered by emailing us at: editor@globaljournals.org .

© Copyright by Global Journals Inc.(US) | Guidelines Handbook
Before start writing a good quality Computer Science Research Paper, let us first understand what is Computer Science Research Paper? So, Computer Science Research Paper is the paper which is written by professionals or scientists who are associated to Computer Science and Information Technology, or doing research study in these areas. If you are novel to this field then you can consult about this field from your supervisor or guide.

TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

1. Choosing the topic: In most cases, the topic is searched by the interest of author but it can be also suggested by the guides. You can have several topics and then you can judge that in which topic or subject you are finding yourself most comfortable. This can be done by asking several questions to yourself, like Will I be able to carry our search in this area? Will I find all necessary recourses to accomplish the search? Will I be able to find all information in this field area? If the answer of these types of questions will be “Yes” then you can choose that topic. In most of the cases, you may have to conduct the surveys and have to visit several places because this field is related to Computer Science and Information Technology. Also, you may have to do a lot of work to find all rise and falls regarding the various data of that subject. Sometimes, detailed information plays a vital role, instead of short information.

2. Evaluators are human: First thing to remember that evaluators are also human being. They are not only meant for rejecting a paper. They are here to evaluate your paper. So, present your Best.

3. Think Like Evaluators: If you are in a confusion or getting demotivated that your paper will be accepted by evaluators or not, then think and try to evaluate your paper like an Evaluator. Try to understand that what an evaluator wants in your research paper and automatically you will have your answer.

4. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

5. Ask your Guides: If you are having any difficulty in your research, then do not hesitate to share your difficulty to your guide (if you have any). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work then ask the supervisor to help you with the alternative. He might also provide you the list of essential readings.

6. Use of computer is recommended: As you are doing research in the field of Computer Science, then this point is quite obvious.

7. Use right software: Always use good quality software packages. If you are not capable to judge good software then you can lose quality of your paper unknowingly. There are various software programs available to help you, which you can get through Internet.

8. Use the Internet for help: An excellent start for your paper can be by using the Google. It is an excellent search engine, where you can have your doubts resolved. You may also read some answers for the frequent question how to write my research paper or find model research paper. From the internet library you can download books. If you have all required books make important reading selecting and analyzing the specified information. Then put together research paper sketch out.

9. Use and get big pictures: Always use encyclopedias, Wikipedia to get pictures so that you can go into the depth.

10. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right! It is a good habit, which helps to not to lose your continuity. You should always use bookmarks while searching on Internet also, which will make your search easier.

11. Revise what you wrote: When you write anything, always read it, summarize it and then finalize it.
12. **Make all efforts:** Make all efforts to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in introduction, that what is the need of a particular research paper. Polish your work by good skill of writing and always give an evaluator, what he wants.

13. **Have backups:** When you are going to do any important thing like making research paper, you should always have backup copies of it either in your computer or in paper. This will help you to not to lose any of your important.

14. **Produce good diagrams of your own:** Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating “hotchpotch.” So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

15. **Use of direct quotes:** When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. **Use proper verb tense:** Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. **Never use online paper:** If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. **Pick a good study spot:** To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. **Know what you know:** Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. **Use good quality grammar:** Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straightforward. put together a neat summary.

21. **Arrangement of information:** Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. **Never start in last minute:** Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. **Multitasking in research is not good:** Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. **Never copy others’ work:** Never copy others’ work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. **Take proper rest and food:** No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. **Go for seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.
27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren’t essential and shouldn’t be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.
Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

**General style:**

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

- Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

- Use standard writing style including articles ("a", "the," etc.)

- Keep on paying attention on the research topic of the paper

- Use paragraphs to split each significant point (excluding for the abstract)

- Align the primary line of each section

- Present your points in sound order

- Use present tense to report well accepted

- Use past tense to describe specific results

- Shun familiar wording, don’t address the reviewer directly, and don’t use slang, slang language, or superlatives

- Shun use of extra pictures - include only those figures essential to presenting results

**Title Page:**

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address(es) of all authors.
Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript—must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The Introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

© Copyright by Global Journals Inc.(US) | Guidelines Handbook
Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.

Shape the theory/purpose specifically - do not take a broad view.

As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

**Procedures (Methods and Materials):**

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

**Materials:**

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

**Methods:**

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

**Approach:**

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

**Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.
Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report.
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts.
- Despite of position, each figure must be numbered one after the other and complete with subtitle.
- In spite of position, each table must be titled, numbered one after the other and complete with heading.
- All figure and table must be adequately complete that it could situate on its own, divide from text.

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information.
- Submit to work done by specific persons (including you) in past tense.
  - Submit to generally acknowledged facts and main beliefs in present tense.
Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

**Segment Draft and Final Research Paper**: You have to strictly follow the template of research paper. If it is not done your paper may get rejected.

- The **major constraint** is that you must independently make all content, tables, graphs, and facts that are offered in the paper. You must write each part of the paper wholly on your own. The Peer-reviewers need to identify your own perceptive of the concepts in your own terms. NEVER extract straight from any foundation, and never rephrase someone else’s analysis.

- Do not give permission to anyone else to “PROOFREAD” your manuscript.

- Methods to avoid Plagiarism is applied by us on every paper, if found guilty, you will be blacklisted by all of our collaborated research groups, your institution will be informed for this and strict legal actions will be taken immediately.

- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.
Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals Inc. (US).

<table>
<thead>
<tr>
<th>Topics</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-B</td>
</tr>
<tr>
<td>Abstract</td>
<td>Clear and concise with appropriate content, Correct format. 200 words or below</td>
</tr>
<tr>
<td></td>
<td>Above 200 words</td>
</tr>
<tr>
<td>Introduction</td>
<td>Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited</td>
</tr>
<tr>
<td>Methods and Procedures</td>
<td>Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads</td>
</tr>
<tr>
<td>Result</td>
<td>Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake</td>
</tr>
<tr>
<td>Discussion</td>
<td>Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited</td>
</tr>
<tr>
<td>References</td>
<td>Complete and correct format, well organized</td>
</tr>
</tbody>
</table>
# Index

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
</tr>
<tr>
<td>Amblyopia</td>
<td>7, 14, 15</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td></td>
</tr>
<tr>
<td>Données</td>
<td>7, 9, 10, 11, 12</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td></td>
</tr>
<tr>
<td>Epelbaum</td>
<td>11, 15</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td></td>
</tr>
<tr>
<td>Fonctionnelle</td>
<td>7</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td></td>
</tr>
<tr>
<td>Hispanics</td>
<td>1</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td></td>
</tr>
<tr>
<td>Thérapeutiques</td>
<td>7</td>
</tr>
</tbody>
</table>