

Année 2019/2020

N°

Thèse

Pour le

DOCTORAT EN MEDECINE

Diplôme d'État

par

Sophie Anne BAILLY

Née le 22 octobre 1991 à Bourges (18)

et

Sabrina SEBBANE

Née le 25 août 1990 à Villeneuve-Saint-Georges (94)

**LA PARITE CHEZ LES ORATEURS AU CONGRES DE L'AMERICAN
PSYCHIATRIC ASSOCIATION : EVOLUTION ENTRE 2009 ET 2019**

Présentée et soutenue publiquement le **29 septembre 2020** devant un jury composé de :

Président du Jury : Professeur Nicolas BALLON, Psychiatrie d'adultes Addictologie, Faculté de Médecine -Tours

Membres du Jury :

Professeur Wissam EL HAGE, Psychiatrie Adulte, Faculté de Médecine – Tours

Professeur Benedicte GOHIER, Psychiatrie Adulte, Faculté de Médecine – Angers

Docteur Coraline HINGRAY, Psychiatrie Adulte, PH, CHU– Nancy

Docteur Corinne VAILLANT, Psychiatrie, PH, CH George Sand – Bourges

Directeur de thèse : Professeur Wissam EL HAGE, Psychiatrie Adulte, Faculté de Médecine – Tours

UNIVERSITE DE TOURS
FACULTE DE MEDECINE DE TOURS

DOYEN

Pr Patrice DIOT

VICE-DOYEN

Pr Henri MARRET

ASSESEURS

Pr Denis ANGOULVANT, *P dagogie*

Pr Mathias BUCHLER, *Relations internationales*

Pr Theodora BEJAN-ANGOULVANT, *Moyens – relations avec l'Universit *

Pr Clarisse DIBAO-DINA, *M decine g n rale*

Pr Fran ois MAILLOT, *Formation M dicale Continue*

Pr Patrick VOUREC'H, *Recherche*

RESPONSABLE ADMINISTRATIVE

Mme Fanny BOBLETER

DOYENS HONORAIRES

Pr Emile ARON (†) – 1962-1966

Directeur de l' cole de M decine - 1947-1962

Pr Georges DESBUQUOIS (†) – 1966-1972

Pr Andr  GOUAZE (†) – 1972-1994

Pr Jean-Claude ROLLAND – 1994-2004

Pr Dominique PERROTIN – 2004-2014

PROFESSEURS EMERITES

Pr Daniel ALISON

Pr Philippe ARBEILLE

Pr Catherine BARTHELEMY

Pr Gilles BODY

Pr Jacques CHANDENIER

Pr Alain CHANTEPIE

Pr Pierre COSNAY

Pr Etienne DANQUECHIN-DORVAL

Pr. Dominique GOGA

Pr Alain GOUDEAU

Pr Anne-Marie LEHR-DRYLEWICZ

Pr G rard LORETTE

Pr Roland QUENTIN

Pr Elie SALIBA

PROFESSEURS HONORAIRES

P. ANTHONIOZ – A. AUDURIER – A. AUTRET – P. BAGROS – P. BARDOS – J.L. BAULIEU – C. BERGER – JC. BESNARD – P. BEUTTER – C. BONNARD – P. BONNET – P. BOUGNOUX – P. BURDIN – L. CASTELLANI – B. CHARBONNIER – P. CHOUTET – T. CONSTANS – C. COUET – L. DE LA LANDE DE CALAN – J.P. FAUCHIER – F. FETISSOF – J. FUSCIARDI – P. GAILLARD – G. GINIES – A. GOUAZE – J.L. GUILMOT – N. HUTEN – M. JAN – J.P. LAMAGNERE – F. LAMISSE – Y. LANSON – O. LE FLOCH – Y. LEBRANCHU – E. LECA – P. LECOMTE – E. LEMARIE – G. LEROY – M. MARCHAND – C. MAURAGE – C. MERCIER – J. MOLINE – C. MORAIN – J.P. MUH – J. MURAT – H. NIVET – L. POURCELOT – P. RAYNAUD – D. RICHARD-LENOBLE – A. ROBIER – J.C. ROLLAND – D. ROYERE – A. SAINDELLE – J.J. SANTINI – D. SAUVAGE – D. SIRINELLI – J. WEILL

PROFESSEURS DES UNIVERSITES - PRATICIENS HOSPITALIERS

ANDRES Christian.....	Biochimie et biologie moléculaire
ANGOULVANT Denis	Cardiologie
AUPART Michel.....	Chirurgie thoracique et cardiovasculaire
BABUTY Dominique	Cardiologie
BAKHOS David	Oto-rhino-laryngologie
BALLON Nicolas.....	Psychiatrie ; addictologie
BARILLOT Isabelle	Cancérologie ; radiothérapie
BARON Christophe	Immunologie
BEJAN-ANGOULVANT Théodora.....	Pharmacologie clinique
BERNARD Anne	Cardiologie
BERNARD Louis	Maladies infectieuses et maladies tropicales
BLANCHARD-LAUMONNIER Emmanuelle	Biologie cellulaire
BLASCO Hélène.....	Biochimie et biologie moléculaire
BONNET-BRILHAULT Frédérique	Physiologie
BRILHAULT Jean.....	Chirurgie orthopédique et traumatologique
BRUNEREAU Laurent	Radiologie et imagerie médicale
BRUYERE Franck.....	Urologie
BUCHLER Matthias.....	Néphrologie
CALAIS Gilles.....	Cancérologie, radiothérapie
CAMUS Vincent.....	Psychiatrie d'adultes
COLOMBAT Philippe.....	Hématologie, transfusion
CORCIA Philippe.....	Neurologie
COTTIER Jean-Philippe	Radiologie et imagerie médicale
DE TOFFOL Bertrand.....	Neurologie
DEQUIN Pierre-François.....	Thérapeutique
DESOUBEAUX Guillaume.....	Parasitologie et mycologie
DESTRIEUX Christophe	Anatomie
DIOT Patrice.....	Pneumologie
DU BOUEXIC de PINIEUX Gonzague	Anatomie & cytologie pathologiques
DUCLUZEAU Pierre-Henri.....	Endocrinologie, diabétologie, et nutrition
DUMONT Pascal.....	Chirurgie thoracique et cardiovasculaire
EL HAGE Wissam.....	Psychiatrie adultes
EHRMANN Stephan	Réanimation
FAUCHIER Laurent	Cardiologie
FAVARD Luc.....	Chirurgie orthopédique et traumatologique
FOUGERE Bertrand	Gériatrie
FOUQUET Bernard.....	Médecine physique et de réadaptation
FRANCOIS Patrick.....	Neurochirurgie
FROMONT-HANKARD Gaëlle	Anatomie & cytologie pathologiques
GAUDY-GRAFFIN Catherine.....	Bactériologie-virologie, hygiène hospitalière
GOUPILLE Philippe	Rhumatologie
GRUEL Yves.....	Hématologie, transfusion
GUERIF Fabrice.....	Biologie et médecine du développement et de la reproduction
GUYETANT Serge	Anatomie et cytologie pathologiques
GYAN Emmanuel.....	Hématologie, transfusion
HAILLOT Olivier.....	Urologie
HALIMI Jean-Michel.....	Thérapeutique
HANKARD Régis.....	Pédiatrie
HERAULT Olivier	Hématologie, transfusion
HERBRETEAU Denis	Radiologie et imagerie médicale
HOURIOUX Christophe.....	Biologie cellulaire
LABARTHE François.....	Pédiatrie
LAFFON Marc	Anesthésiologie et réanimation chirurgicale, médecine d'urgence
LARDY Hubert.....	Chirurgie infantile
LARIBI Saïd.....	Médecine d'urgence
LARTIGUE Marie-Frédérique.....	Bactériologie-virologie
LAURE Boris.....	Chirurgie maxillo-faciale et stomatologie
LECOMTE Thierry.....	Gastroentérologie, hépatologie
LESCANNE Emmanuel.....	Oto-rhino-laryngologie
LINASSIER Claude	Cancérologie, radiothérapie
MACHET Laurent	Dermato-vénéréologie
MAILLOT François	Médecine interne
MARCHAND-ADAM Sylvain	Pneumologie
MARRET Henri	Gynécologie-obstétrique

MARUANI Annabel.....	Dermatologie-vénérologie
MEREGHETTI Laurent.....	Bactériologie-virologie ; hygiène hospitalière
MITANCHEZ Delphine.....	Pédiatrie
MORINIERE Sylvain.....	Oto-rhino-laryngologie
MOUSSATA Driffa.....	Gastro-entérologie
MULLEMAN Denis.....	Rhumatologie
ODENT Thierry.....	Chirurgie infantile
OUAISSI Mehdi.....	Chirurgie digestive
OULDAMER Lobna.....	Gynécologie-obstétrique
PAINTAUD Gilles.....	Pharmacologie fondamentale, pharmacologie clinique
PATAT Frédéric.....	Biophysique et médecine nucléaire
PERROTIN Dominique.....	Réanimation médicale, médecine d'urgence
PERROTIN Franck.....	Gynécologie-obstétrique
PISELLA Pierre-Jean.....	Ophthalmologie
PLANTIER Laurent.....	Physiologie
REMERAND Francis.....	Anesthésiologie et réanimation, médecine d'urgence
ROINGEARD Philippe.....	Biologie cellulaire
ROSSET Philippe.....	Chirurgie orthopédique et traumatologique
RUSCH Emmanuel.....	Epidémiologie, économie de la santé et prévention
SAINT-MARTIN Pauline.....	Médecine légale et droit de la santé
SALAME Ephrem.....	Chirurgie digestive
SAMIMI Mahtab.....	Dermatologie-vénérologie
SANTIAGO-RIBEIRO Maria.....	Biophysique et médecine nucléaire
THOMAS-CASTELNAU Pierre.....	Pédiatrie
TOUTAIN Annick.....	Génétique
VAILLANT Loïc.....	Dermato-vénérologie
VELUT Stéphane.....	Anatomie
VOURC'H Patrick.....	Biochimie et biologie moléculaire
WATIER Hervé.....	Immunologie

PROFESSEUR DES UNIVERSITES DE MEDECINE GENERALE

DIBAO-DINA Clarisse
LEBEAU Jean-Pierre

PROFESSEURS ASSOCIES

MALLET Donatien.....Soins palliatifs
POTIER Alain.....Médecine Générale
ROBERT Jean.....Médecine Générale

PROFESSEUR CERTIFIE DU 2ND DEGRE

MC CARTHY Catherine.....Anglais

MAITRES DE CONFERENCES DES UNIVERSITES - PRATICIENS HOSPITALIERS

BARBIER Louise.....	Chirurgie digestive
BERHOUEZ Julien.....	Chirurgie orthopédique et traumatologique
BRUNAUT Paul.....	Psychiatrie d'adultes, addictologie
CAILLE Agnès.....	Biostat., informatique médical et technologies de communication
CLEMENTY Nicolas.....	Cardiologie
DENIS Frédéric.....	Odontologie
DOMELIER Anne-Sophie.....	Bactériologie-virologie, hygiène hospitalière
DUFOUR Diane.....	Biophysique et médecine nucléaire
ELKRIEF Laure.....	Hépatologie – gastroentérologie
FAVRAIS Géraldine.....	Pédiatrie
FOUQUET-BERGEMER Anne-Marie.....	Anatomie et cytologie pathologiques
GATAULT Philippe.....	Néphrologie
GOUILLEUX Valérie.....	Immunologie
GUILLON Antoine.....	Réanimation
GUILLON-GRAMMATICO Leslie.....	Epidémiologie, économie de la santé et prévention
HOARAU Cyrille.....	Immunologie

IVANES Fabrice	Physiologie
LE GUELLEC Chantal.....	Pharmacologie fondamentale, pharmacologie clinique
LEFORT Bruno	Pédiatrie
LEGRAS Antoine.....	Chirurgie thoracique
LEMAIGNEN Adrien	Maladies infectieuses
MACHET Marie-Christine	Anatomie et cytologie pathologiques
MOREL Baptiste	Radiologie pédiatrique
PIVER Eric.....	Biochimie et biologie moléculaire
REROLLE Camille.....	Médecine légale
ROUMY Jérôme	Biophysique et médecine nucléaire
SAUTENET Bénédicte	Thérapeutique
TERNANT David.....	Pharmacologie fondamentale, pharmacologie clinique
VUILLAUME-WINTER Marie-Laure.....	Génétique
ZEMMOURA Ilyess	Neurochirurgie

MAITRES DE CONFERENCES DES UNIVERSITES

AGUILLON-HERNANDEZ Nadia.....	Neurosciences
BOREL Stéphanie.....	Orthophonie
NICOGLOU Antonine	Philosophie – histoire des sciences et des techniques
PATIENT Romuald.....	Biologie cellulaire
RENOUX-JACQUET Cécile	Médecine Générale

MAITRES DE CONFERENCES ASSOCIES

BARBEAU Ludivine.....	Médecine Générale
RUIZ Christophe.....	Médecine Générale
SAMKO Boris.....	Médecine Générale

CHERCHEURS INSERM - CNRS - INRA

BOUAKAZ Ayache	Directeur de Recherche INSERM – UMR INSERM 1253
CHALON Sylvie	Directeur de Recherche INSERM – UMR INSERM 1253
COURTY Yves	Chargé de Recherche CNRS – UMR INSERM 1100
DE ROCQUIGNY Hugues	Chargé de Recherche INSERM – UMR INSERM 1259
ESCOFFRE Jean-Michel.....	Chargé de Recherche INSERM – UMR INSERM 1253
GILLOT Philippe.....	Chargé de Recherche INRA – UMR INRA 1282
GOUILLEUX Fabrice	Directeur de Recherche CNRS – UMR CNRS 7001
GOMOT Marie.....	Chargée de Recherche INSERM – UMR INSERM 1253
HEUZE-VOURCH Nathalie.....	Chargée de Recherche INSERM – UMR INSERM 1100
KORKMAZ Brice.....	Chargé de Recherche INSERM – UMR INSERM 1100
LAUMONNIER Frédéric	Chargé de Recherche INSERM – UMR INSERM 1253
MAZURIER Frédéric.....	Directeur de Recherche INSERM – UMR CNRS 7001
MEUNIER Jean-Christophe	Chargé de Recherche INSERM – UMR INSERM 1259
PAGET Christophe	Chargé de Recherche INSERM – UMR INSERM 1100
RAOUL William	Chargé de Recherche INSERM – UMR CNRS 7001
SI TAHAR Mustapha.....	Directeur de Recherche INSERM – UMR INSERM 1100
WARDAK Claire.....	Chargée de Recherche INSERM – UMR INSERM 1253

CHARGES D'ENSEIGNEMENT

Pour l'Ecole d'Orthophonie

DELORE Claire	Orthophoniste
GOUIN Jean-Marie.....	Praticien Hospitalier

Pour l'Ecole d'Orthoptie

MAJZOUB Samuel.....	Praticien Hospitalier
---------------------	-----------------------

Pour l'Ethique Médicale

BIRMELE Béatrice.....	Praticien Hospitalier
-----------------------	-----------------------

SERMENT D'HIPPOCRATE

En présence des Maîtres de cette Faculté,
de mes chers condisciples
et selon la tradition d'Hippocrate,
je promets et je jure d'être fidèle aux lois de l'honneur
et de la probité dans l'exercice de la Médecine.

Je donnerai mes soins gratuits à l'indigent,
et n'exigerai jamais un salaire au-dessus de mon travail.

Admis dans l'intérieur des maisons, mes yeux
ne verront pas ce qui s'y passe, ma langue taira
les secrets qui me seront confiés et mon état ne servira pas
à corrompre les mœurs ni à favoriser le crime.

Respectueux et reconnaissant envers mes Maîtres,
je rendrai à leurs enfants
l'instruction que j'ai reçue de leurs pères.

Que les hommes m'accordent leur estime
si je suis fidèle à mes promesses.
Que je sois couvert d'opprobre
et méprisé de mes confrères
si j'y manque.

REMERCIEMENTS

A Monsieur le Professeur Nicolas BALLON, nous vous remercions d'avoir accepté d'être le président du jury de cette thèse. Veuillez recevoir ici l'expression de notre plus sincère gratitude et de notre plus profond respect.

A Monsieur le Professeur EL HAGE, vous avez coordonné l'ensemble de la réalisation de notre thèse et nous faites l'honneur d'accepter de juger notre travail. Sans votre investissement, ce travail n'aurait pas existé. Mille mercis. Veuillez recevoir ici l'expression de notre plus sincère gratitude et notre plus profond respect.

A Madame le Professeur Bénédicte GOHIER, nous vous remercions d'avoir accepté d'être membre du jury de cette thèse. Veuillez recevoir ici l'expression de notre plus sincère gratitude et de notre plus profond respect.

A Madame le Docteur Coraline HINGRAY, vous nous faites l'honneur d'accepter de juger notre travail. Vous avez en grande partie contribué à ce travail et nous vous en remercions. Veuillez recevoir ici l'expression de notre plus sincère gratitude et notre plus profond respect.

A Madame le Docteur Corinne VAILLANT, vous nous faites l'honneur de juger cette thèse. Merci d'avoir accepté avec enthousiasme de participer à ce jury, et merci d'avoir partagé avec nous votre expérience sur le sujet. Veuillez recevoir ici l'expression de notre plus sincère gratitude et de notre plus profond respect.

Merci à l'ensemble des médecins et enseignants qui nous ont accompagnées, guidées et éclairées lors de notre formation, théorique et pratique.

Merci aux médecins qui nous ont accompagnées avec bienveillance lors de chacun de nos stages.

REMERCIEMENTS – Sabrina SEBBANE

A Sophie, ma co-thésarde, mon amie et ex co-interne, sans laquelle ce travail n'aurait pu se réaliser. Tu m'as donné ta confiance pour faire partie de ce projet en cours de route. Je te remercie également pour ton amitié, ton authenticité et ton soutien. Tu feras un excellent psychiatre, n'en doute pas une seconde.

A mes parents, sans qui je ne serai pas là aujourd'hui. Vous m'avez permis de réaliser mon rêve de petite fille sans jamais douter de moi. Vous avez été mon support dans les moments les plus difficiles même lorsque la distance ne facilitait pas les choses. Je vous aime et vous remercie.

A Mohamed, mon mari, mon ami, mon partenaire pour la vie, merci pour ta compréhension et ton amour pendant ces dernières années. Tu as toujours été attentif à mon bien-être et supporté la distance des années d'internat alors que d'autres auraient abandonné. J'espère pouvoir te soutenir autant que tu l'as fait dans les années à venir.

A mon frère Bilal et mes sœurs Célia et Kahina, vous participez à écrire des pages de bonheur dans ma vie à chacune de nos rencontres. Pour cela, je vous remercie. Je chéris les moments que nous avons passé ensemble et espère que nous en aurons encore beaucoup d'autres.

A ma grand-mère Setsé, merci de t'inquiéter toujours pour moi. Ta présence seule contribue à mon bonheur. Si je pouvais te garder toujours auprès de moi, je le ferai.

A ma tante Malika, je te remercie de me faire toujours aussi rire même dans les moments les plus difficiles. Tu es une personne comme on n'en croise plus. Merci de faire partie de ma vie.

A ma très chère amie Marine, pour ton amitié inconditionnelle malgré les kilomètres qui nous séparent, je te dis merci. Je te suis reconnaissante pour ton éternelle bienveillance. Tu es une rareté qu'on ne retrouve plus de nos jours.

A Wayne, je te remercie pour l'aide que tu nous as apporté sans hésiter. Je te considère désormais comme un ami et espère que tu pourras compter sur moi à l'avenir.

A Catherine et Jean-Luc, je vous remercie de votre bonté et bienveillance. Ce qui nous lie n'a rien à envier aux liens du sang et je suis heureuse de vous avoir rencontrés.

Et à toutes les autres personnes qui font partie de ma vie et ont contribué à faire de moi la personne que je suis aujourd'hui, je vous dis merci.

REMERCIEMENTS – Sophie BAILLY

A *Sabrina*, La première co-interne que j'ai rencontrée, et qui est devenue depuis une de mes plus chères amies. Notre complicité a amené à la rédaction commune de cette thèse et tu as effectué un travail exceptionnel dont tu peux être fière. Ces 4 années d'internat auraient été bien tristes sans toi.

A mes parents, *Véronique et Patrice*. Merci pour votre accompagnement et votre soutien tout au long de ma vie. Vous m'avez toujours encouragé dans mon choix de devenir psychiatre, et avez tout mis en œuvre pour m'aider à réaliser ce projet dans les meilleures conditions.

A mes grands-parents, *Geneviève et Michel*. Merci pour votre soutien indéfectible. Nul doute que je ne serais pas où j'en suis aujourd'hui sans vous, et ne pourrai jamais assez vous remercier.

A mon conjoint, *Wayne*. Tes qualités sont innombrables, mais la plus grande reste encore d'arriver à me supporter. Merci pour ton amour, ta patience et tout ce que tu m'apportes au quotidien. Dire que la thèse n'aurait pas existé sans toi est un doux euphémisme.

A ma sœur et mon frère, *Ophélie et Vincent*. Votre réussite professionnelle et personnelle est un exemple.

Merci à tous les autres membres de ma famille, je ne peux tous vous citer ici mais pense à vous tout autant.

A ma belle-famille, qui m'a accueillie si chaleureusement.

A mes amies d'enfance, *Alice C, Margaux, Alice D, Emma*, et toutes et tous les autres. Je me réjouis toujours de vous garder comme amis depuis si longtemps.

A mes camarades de la facultés de médecine de Tours, *Emma, Sarah, Delphine, Tiphaine, Virginie, Elodie, Aurore, Clara et aussi Céline*. Nous formons un sacré groupe de nénétes. Merci aussi à vos conjoints et enfants, de venir agrandir avec brio cette fin équipe.

A tous les co-internes et psychiatres avec qui j'ai sympathisé pendant ces 4 ans, *Kevin, Valérian, Thibaud, Sarah et tous les autres*.

Merci à toutes les équipes que j'ai rencontré lors des différents stages, qui m'ont beaucoup appris et ont rendu l'ambiance de travail toujours agréable.

Et à tous les autres que je n'ai pas cités ici, la liste serait trop longue mais je n'oublie pas à quel point je suis toujours bien entourée.

A Hamou,

*Aux Claude(s),
à Marie et Marcel.*

*Une moitié de l'espèce humaine est hors de l'égalité, il faut l'y faire rentrer. [...] donner
pour contre-poids au droit de l'homme le droit de la femme.*

Victor Hugo,

RESUME

Introduction - La parité hommes/femmes est un enjeu sociétal majeur. L'objectif de notre étude était de décrire l'évolution de la représentation des femmes au congrès de psychiatrie de l'American Psychiatric Association et de la comparer à l'évolution de la représentation des femmes parmi les psychiatres américains.

Méthode - Les données ont été obtenues à partir des programmes du congrès de l'American Psychiatric Association de 2009 et de 2019, et auprès de l'Association of American Medical Colleges. Des analyses statistiques descriptives et comparatives ont été réalisées.

Résultats - Entre 2009 et 2019, la proportion de femmes intervenant au congrès de l'American Psychiatric Association a augmenté significativement (respectivement 37% vs 45%). La proportion de femmes intervenant au congrès était quasiment équivalente à la proportion de femmes parmi les psychiatres américains. La proportion de femmes présidentes de session n'a pas augmenté significativement entre 2009 (42%) et 2019 (47%). La proportion de femmes intervenant sur des thèmes de pédopsychiatrie était supérieure à la proportion d'hommes en 2009 (55%) et en 2019 (51%).

Conclusion - La représentation des femmes au congrès de l'American Psychiatric Association a augmenté entre 2009 et 2019, malgré une évolution plus lente de la proportion des femmes parmi les psychiatres américains. L'American Psychiatric Association semble ainsi favoriser la représentation des femmes lors de ses congrès.

Mots clés : parité hommes femmes, congrès, psychiatrie, American Psychiatric Association, évolution

EVOLUTION OF SEX EQUITY AT THE APA ANNUAL MEETINGS

(In correction before submission)

Authors: Sabrina Sebbane, Sophie Bailly, Wayne-Corentin Lambert, Coraline Hingray, Wissam El Hage

Abstract

Introduction - Sex equity is a major society issue. The aim of this paper was to describe the evolution of the representation of women among speakers of the American Psychiatric Association annual meeting over 10 years, between 2009 and 2019 and to compare it to the evolution of women among American psychiatrists.

Method - Data was collected from the programs of the American Psychiatric Association annual meetings of 2009 and 2019, and from the Association of American Medical Colleges. Descriptive and comparative statistical analysis were performed.

Results - Between 2009 and 2019, the percentage of female speakers at the American Psychiatric Association annual meeting increased significantly (37% vs 45%). The proportion of female speakers at the meetings was almost equivalent to the proportion of women in the American psychiatrists' workforce. The percentage of female chairs did not increase significantly between 2009 (42%) and 2019 (47%). In child and adolescent psychiatry, the percentage of female speakers was higher than the percentage of male speakers in 2009 (55%) and 2019 (51%).

Conclusion - The representation of women at the American Psychiatric Association annual meetings increased between 2009 and 2019. At the same time, the evolution of the percentage of women in the American psychiatrists' workforce was slower. The American Psychiatric Association seems to promote women representation during its annual meetings.

Keywords: sex equity, psychiatry annual meetings, American Psychiatric Association, evolution

TABLE DES MATIERES

RESUME (En Français)	12
RESUME (En Anglais)	13
INTRODUCTION (En Français)	15
ARTICLE (En Anglais)	17
INTRODUCTION.....	18
METHODS	20
<i>STUDY SAMPLE</i>	20
<i>VARIABLES</i>	20
<i>STATISTICS</i>	22
RESULTS	23
<i>GENERAL DATA</i>	23
<i>DATA PER ROLE</i>	23
<i>DATA PER TOPIC</i>	24
<i>DATA PER SESSION</i>	25
DISCUSSION	29
<i>STRENGTHS AND LIMITS</i>	30
<i>LITERATURE REVIEW</i>	31
<i>HYPOTHESIS</i>	32
CONCLUSION	34
CONCLUSION (En Français)	35
BIBLIOGRAPHIE	37
ANNEXE	40

INTRODUCTION

Alors que nous vivons à une époque qui promeut la parité hommes femmes cette problématique est aussi posée dans le domaine de la santé, en particulier chez les soignants (1) et dans la recherche (2). En France, Constance Pascale fut l'une des premières femmes à passer le concours de l'internat de psychiatrie en 1903. Elle a eu par la suite une activité clinique et de recherche importante, avec plusieurs publications à son actif (3). Depuis cet exemple quasi-unique, le taux de femmes médecins a augmenté de façon importante, notamment en psychiatrie. En effet, en France, les femmes représentaient 51% de la population de psychiatres inscrits à l'Ordre des Médecins en 2018 (4). Cette représentation ne s'est cependant pas transmise à toutes les étapes d'une carrière. Ainsi, dans le domaine de la recherche, seulement 24% des professeurs d'université étaient des femmes en 2017 (4). Pour souligner le faible accès des femmes à des postes prestigieux dans le milieu hospitalo-universitaire, les femmes ne représentaient que 15% des effectifs de professeurs universitaires-praticiens hospitaliers (PU-PH) au sein du groupe hospitalier de la Pitié Salpêtrière à Paris en 2017 (5).

Les congrès des sociétés savantes sont des événements importants pour les médecins. Intervenir à un congrès en tant qu'orateur est une opportunité de promouvoir son travail et d'augmenter sa visibilité au sein de la profession. L'étude de la représentation des femmes en tant qu'oratrices à ces congrès serait un moyen intéressant d'évaluer la représentation et la visibilité des femmes dans leur milieu. De plus, l'étude de la parité hommes femmes pourrait permettre son amélioration (6).

Des études antérieures ont déjà montré une sous-représentation des femmes dans les congrès académiques de médecine (7–14). Cependant, l'écart entre le pourcentage de femmes dans la population médicale active et le pourcentage de femmes oratrices lors des congrès semblent se résorber progressivement (7,9,13). Plusieurs spécialités médicales ont étudié la représentativité des femmes lors de leurs congrès annuels. Une étude a ainsi montré que la parité hommes femmes a été atteinte lors du congrès de microbiologie en 2015 (6). En comparaison, entre 2014 et 2018, les congrès nationaux de neurochirurgie n'ont pas respecté la parité hommes femmes (14). En psychiatrie, deux études ont exploré la représentation des femmes au sein des congrès de psychiatrie, l'une française et l'autre australienne. Elles ont toutes deux mis en avant une amélioration de la représentation des femmes aux congrès avec le temps, sans atteindre la parité pour autant (15,16). Pierron et al. ont dans leur étude comparé la représentativité des oratrices au Congrès de l'Encéphale et du Congrès Français de Psychiatrie, de 2009 à 2018, aux

femmes inscrites à l'Ordre des médecins. Ils ont montré une sous-représentation des femmes dans ces congrès par rapport aux femmes exerçant la psychiatrie en France (15). Nous n'avons cependant pas trouvé de données publiées concernant un congrès international de psychiatrie.

Avec ses 38 800 membres, l'American Psychiatric Association (APA) est l'organisation psychiatrique la plus importante au monde. L'APA promeut ouvertement l'équité et l'égalité des sexes (17,18). Ainsi, en 2017, l'APA a publié une déclaration de position indiquant leur engagement à augmenter la représentation des femmes psychiatres dans les rôles de leadership (19). En 2019, Silver et al. ont examiné la parité hommes femmes des présidents des sociétés médicales entre 2008 et 2017. Leurs travaux ont montré que l'APA faisait partie des rares sociétés médicales qui atteignait la parité des sexes dans le choix de leur président (20). Cependant, Larson et al. ont montré que les femmes étaient sous-représentées parmi les orateurs du congrès annuel de l'APA entre 2013 et 2017. Néanmoins, leur étude ne s'intéressait qu'à la représentation des femmes parmi les conférenciers principaux, les orateurs des séances plénières et les conférenciers invités au congrès de l'APA (7). A ce jour, l'étude précise de l'évolution de la parité hommes femmes au congrès annuel de l'APA n'a pas été réalisée sur une longue durée.

L'objectif de notre travail était de décrire l'évolution de la représentation des femmes oratrices au congrès annuel de l'APA durant une décennie, entre 2009 et 2019. Notre objectif secondaire était de décrire cette évolution parmi les rôles des orateurs dans les programmes. Nous avons aussi décrit l'évolution de la représentation des femmes dans les différentes thématiques et sessions. Finalement, nous avons comparé la représentation des femmes aux congrès de l'APA avec la représentation des femmes parmi la population de psychiatres aux États-Unis.

ARTICLE (en anglais):

EVOLUTION OF SEX EQUITY AT THE APA ANNUAL MEETINGS

(In correction before submission)

Authors: Sabrina Sebbane, Sophie Bailly, Wayne-Corentin Lambert, Coraline Hingray,
Wissam El Hage

INTRODUCTION

As we live in an era promoting sex equity in multiple ways, this question is also well-studied in health, in particular for health providers (1) and in research (2). Since the first woman who officially studied in an American medical school in 1847 (21), the rates of women physicians have highly increased, including in psychiatry. Indeed, approximately 40% of the active psychiatrists and 50% of the active child and adolescent psychiatrists in the United States (US) were women in 2017 (22). In academic psychiatry, women are now more represented as faculty, but are still underrepresented in leadership roles like department chair (23).

Annual meetings of scientific societies are important events for physicians, and speaking during these meetings is a good way to promote their work and increase their visibility in the profession. Studying the rate of women speaking during these meetings could be an interesting way to evaluate their representation and visibility in their field. Also, studying sex equity could in itself improve sex equity (6).

Previous studies showed an underrepresentation of women in academic meetings (7–12,24,25). However, the gap between the percentage of women in the workforce and the percentage of women among speakers seem to decrease with time (7,9,13). Several medical specialties have studied woman representation in their annual meetings. Studies showed that sex equity among speakers was achieved in 2015 in the microbiology meeting (6). In contrast, for example, neurosurgery's annual meeting did not reach sex equity among speakers (14). In psychiatry, we found only two studies, which demonstrated that women representation at the French and the Australian annual meetings improved over the years (15,16). While the proportion of female speakers at the Victorian Branch Conference evolved from one in seven to four in seven between 2013 and 2014, women were still underrepresented at the French annual meeting in 2018 (15,16).

With 38,800 members, the American Psychiatric Association (APA) is the most prominent psychiatric organization in the world (18). The APA advocates openly about equity (17). In 2017, the APA published a position statement indicating its will to increase the representation of women psychiatrists in leadership role (19). In 2019, Silver et al. examined sex equity in medical societies leadership between 2008 and 2017. Their work showed that the APA was part of the few medical societies that achieved sex equity for leadership (20). However, Larson et al. showed that women were underrepresented among speakers at the APA annual meeting between 2013 and 2017. Nevertheless, their study analyzed women

representation only among keynote and plenary speakers and invited lecturers at the APA annual meetings (7). No study to this day has analyzed the evolution of sex equity among all the APA annual meetings speakers over a large period of time.

The aim of this paper was to describe the evolution of the representation of women among speakers of the APA annual meeting over 10 years, between 2009 and 2019. Our secondary objective was to describe this evolution in the different roles presented in the programs. We will also describe the evolution of the representation of women in the different topics as well as in the different sessions. Finally, we wanted to compare women representation at the APA annual meetings with the women representation in the US psychiatric workforce.

METHODS

Study sample

The programs of the APA Annual Meeting of 2009 and 2019 were analyzed to collect accurately for each speaker four main variables:

- The sex : man or woman;
- The type of role : chairs, presenters, lecturers, directors, faculty and discussants;
- The type of session: general sessions, courses, presidential sessions, workshops, master courses and special sessions;
- The main topic of the session: addiction psychiatry, child and adolescent psychiatry, consultation-liaison psychiatry, diversity and health equity, forensic psychiatry, geriatric psychiatry, residents, fellows, and medical students and “other topics”.

The APA annual meeting programs were available online.

Variables

We collected the role for each speaker in 2009 and 2019. Dissimilarities in types of roles do exist between the 2009 and 2019 programs. For comparison purposes, we gathered some types of roles under the same terminology as described in Table 1. The following terminology was used to classify the 2009 and 2019 types of roles: chair, special presenter, director, faculty, discussant and presenter. We differentiated presenters of special sessions from the overall presenters as these speakers appeared to be in the spotlight.

In the same way, we collected sex information of the speakers from the different types of sessions in the 2009 and 2019 APA programs. For comparison purposes, we also gathered some types of sessions under the same terminology as described in Table 1. The following terminology was used to classify the 2009 and 2019 types of session: presidential session, master course, special session, workshop, symposium and course.

The main topic of each session was mentioned in the 2019 program. As some of the topics mentioned in 2009 did not match those in 2019 and were more complex, we decided to

assign one of the 2019 topics to a part of the 2009 sessions. Sessions with no topic mentioned or no topic corresponding to the list were labeled as “other topics”. The following terminology was used to classify the 2009 and 2019 topics: addiction psychiatry, child and adolescent psychiatry, consultation-liaison psychiatry, diversity and health equity, forensic psychiatry, geriatric psychiatry, residents, fellows, and medical students. Some sessions mentioned two different topics, both in the 2009 and 2019 program.

TABLE 1. Terminology matching between 2009 and 2019.

2009	2019	Used terminology
Roles		
Chair, Vice-chair	Chair, Host	Chair
Not specified in a lecture	Presenter from special session	Special presenter
Director	Director	Director
Faculty	Faculty	Faculty
Discussant	Discussant	Discussant
Participant, Presenters, Pro/con-side, Moderator, Panelist, Not specified	Presenter, Pro-con, Moderator, Not Specified	Presenter
Sessions		
Lecture	Presidential session	Presidential session
Master courses	Master courses	Master courses
Mindgames, Special Event	Special session	Special session
Workshop	Learning Lab, Media Session	Workshop
Symposium, Advances in ... series, Case conferences, Forums, Scientific and Clinical report session, Medical updates	General session	Symposium
Courses	Courses	Courses
Topics		
Addiction psychiatry, Alcohol and drug related disorders, Eating disorder	Addiction psychiatry, NIDA research track	Addiction psychiatry
Attention spectrum disorder, Child and adolescent psychiatry and disorders	Child and adolescent psychiatry	Child and adolescent psychiatry
AIDS and HIV Related disorders, Pain management, Sleep disorders	Consultation-liaison psychiatry	Consultation-liaison psychiatry
Cross cultural and minority issues, Ethics and human rights, Gender issues, Lesbian gay bisexual transgender issues, Religion, spirituality and psychiatry, Social and community psychiatry, Stigma advocacy	Diversity and health equity	Diversity and health equity
Psychiatric education, Resident and medical students concerns	Resident, fellows and medical students	Resident, fellows and medical students
Forensic psychiatry	Forensic psychiatry	Forensic psychiatry
Geriatric psychiatry	Geriatric psychiatry	Geriatric psychiatry
Other*	Unspecified	Other topics
<i>* Sessions from other topic from 2009 were classified one by one with the most relevant 2019 topic according to their name, if no 2019 topics matched, they were classified as “other topics”</i>		

Sex of the speakers was identified using their first name and a research on the. Sex identification was realized by an author then verified by a second one to avoid wrong sex assignment. Finally, as some speakers spoke in several sessions, each speech was counted and defined. Demographic data were obtained from the website of the Association of American Medical Colleges for the years 2007 and 2017 as the data for 2009 and 2019 were not available. The percentage of active male and female physicians and residents in psychiatry and child and adolescent psychiatry in the US in 2007 and 2017 was collected.

Statistics

We first performed a descriptive analysis. We calculated the percentage of men and women speakers in the 2009 and 2019 APA annual meetings. We calculated the total percentage of men and women speakers for each year and then for each type of session, role and topic.

For each year, we also performed a comparative analysis. We used a z-test to calculate if the percentage of women was significantly different from 50% overall as well as in each of the categories described before. We used a Chi² analysis to determine if there was a significant difference in the total percentage of women speakers in 2019, compared to 2009. We also performed a Chi² analysis to determine if the percentage of women speakers in each category was significantly different in 2019, compared to 2009. Finally, we calculated the rate of evolution of the representation of women between 2009 and 2019, overall and for each category. All the tests used were two-tailed. Statistical significance was defined as p-value < 0.05.

RESULTS

General data

We describe here the evolution of the percentage of men and women among speakers at the 2009 and 2019 APA annual meetings, according to the inclusion criteria described above. In 2009 and 2019, we identified 1093 and 1762 speakers at the APA annual meeting, respectively. The percentage of female speakers at the APA annual meeting increased significantly from 37% in 2009 to 45% in 2019 ($p < 0.0001$). The proportion of female speakers at the APA annual meeting increased by 18% over 10 years, between 2009 and 2019. The proportion of female speakers at the APA annual meeting was almost equivalent to the proportion of active female psychiatrists in the US. Indeed, the percentage of active female psychiatrists in the US was of 35% in 2007 and 42% in 2017. However, the proportion of female residents and fellows in psychiatry decreased from 55% to 53% between 2007 and 2017. This suggests that the percentage of female speakers at the APA annual meetings was slightly higher than the percentage of active female psychiatrists during the approximately same decade.

Data per role

We describe here the representation of female speakers among chairs, special presenters, directors, faculty, discussants and presenters. Figure 1a illustrates the representation of female speakers for each role. Figure 2a illustrates the percentage of progression of female speakers' representation for each role between 2009 and 2019.

Compared to 2009, the proportion of female chairs increased in 2019, although not significantly (42% vs 47%; $p = 0.07$). Between 2009 and 2019, the proportion of female chairs increased by 11%. In the same way, while the proportion of female special presenters increased by 54%, it did not increase significantly (18% vs 40%; $p = 0.60$). The percentage of female directors increased from 21% in 2009 to 23% in 2019, though not significantly ($p = 1.0$). The representation of women among directors increased by 11%. Similarly, the proportion of female faculty was not significantly higher in 2019, compared to 2009 (45% vs 35%; $p = 0.70$). Between 2009 and 2019, the representation of female faculty increased by 22%. The percentage of female discussants did not increase significantly (29% vs 40%; $p = 0.80$). However, the representation of female discussants improved by 29% during this decade. Compared to 2009, the proportion of female presenters was significantly higher in 2019 (38% vs 46%; $p = 0.006$).

The representation of women among presenters increased by 18% between 2009 and 2019. It was the only statistically significant increase.

Data per topic

We describe here the representation of female speakers among: addiction psychiatry; child and adolescent psychiatry; consultation-liaison psychiatry; diversity and health equity; forensic psychiatry; geriatric psychiatry; residents, fellows, and medical students and other topics at the 2009 and 2019 APA annual meetings. Figures 1b illustrates the representation of female speakers in each topic, while Figure 2b illustrates the percentage of progression of female speakers representation for each topic between 2009 and 2019.

The percentage of female speakers in addiction psychiatry at the APA annual meeting decreased between 2009 and 2019, though not significantly (40% vs 32%; $p=0.10$). The representation of female speakers in addiction psychiatry at the APA meeting diminished by 26% during this decade. Similarly, the percentage of female speakers in child and adolescent psychiatry sessions did not decrease significantly (55% vs 51%; $p=0.60$). The representation of female speakers in child and adolescent psychiatry at the APA annual meeting decreased by 9% in this time period. In consultation-liaison psychiatry sessions, the proportion of female speakers did not increase significantly between 2009 and 2019 (35% vs 44%; $p=0.2$). During this decade, the representation of female speakers in consultation-liaison psychiatry at the APA annual meeting increased by 20%. At the APA diversity and health equity sessions, the percentage of female speakers rose significantly between 2009 and 2019 (45% vs 54%; $p=0.04$). The representation of female speakers during the APA diversity and health equity sessions increased by 18% during this decade. Likewise, the proportion of female speakers in forensic psychiatry was significantly higher in 2019, when compared to 2009 (42% vs 29%; $p=0.02$). Also, the representation of female speakers in forensic psychiatry at the APA annual meeting increased by 32% between 2009 and 2019. In geriatric psychiatry, the percentage of female speakers increased at the APA annual meeting between 2009 and 2019, but not significantly (42% vs 44%; $p=0.80$). Accordingly, the representation of female speakers in geriatric psychiatry increased by 6% during this time period. The proportion of female speakers in residents, fellows, and medical students' sessions did not increase significantly between 2009 and 2019 (52% vs 56%; $p=0.40$). The representation of female speakers in residents, fellows, and medical students' sessions at the APA annual meeting increased by 8%. In other topics

sessions, the percentage of female speakers rose significantly during this decade (31% vs 44%; $p < 0.0001$) with an increase of 30%.

Data per session

We describe here the representation of female speakers among general sessions, courses, presidential sessions, workshops, master courses and special sessions at the 2009 and 2019 APA annual meetings. Figure 1c illustrates the representation of female speakers for each type session. Figure 2c illustrates the percentage of progression of female speakers' representation for each type of session at the APA annual meeting between 2009 and 2019.

The percentage of female speakers during presidential sessions increased between 2009 and 2019, though not significantly (31% vs 41%; $p = 0.20$). The representation of female speakers in presidential sessions increased by 24% between 2009 and 2019. When compared to 2009, the proportion of female speakers during master courses decreased in 2019 (36% vs 19%), but not significantly ($p = 0.30$). The representation of female speakers in master courses decreased by 88% between 2009 and 2019. The percentage of female speakers during special sessions did not increase significantly between 2009 and 2019 (39% vs 42%; $p = 0.80$). The representation of female speakers in special sessions increased by 8% between 2009 and 2019. Equally, the proportion of female speakers during workshops did not increase significantly between 2009 and 2019 (44% vs 55%; $p = 0.06$). The representation of female speakers in workshops increased by 20% between 2009 and 2019. The percentage of female speakers during general sessions was significantly higher in 2019 compared to 2009 (46% vs 34%; $p < 0.0001$). The representation of female speakers in general sessions increased by 27% between 2009 and 2019. The proportion of female speakers during courses was significantly higher in 2019 compared to 2009 (40% vs 27%; $p = 0.02$). The representation of female speakers in courses increased by 31% between 2009 and 2019.

FIGURE 1. Evolution of women rate per role, per topic and per type of session between 2009 and 2019.

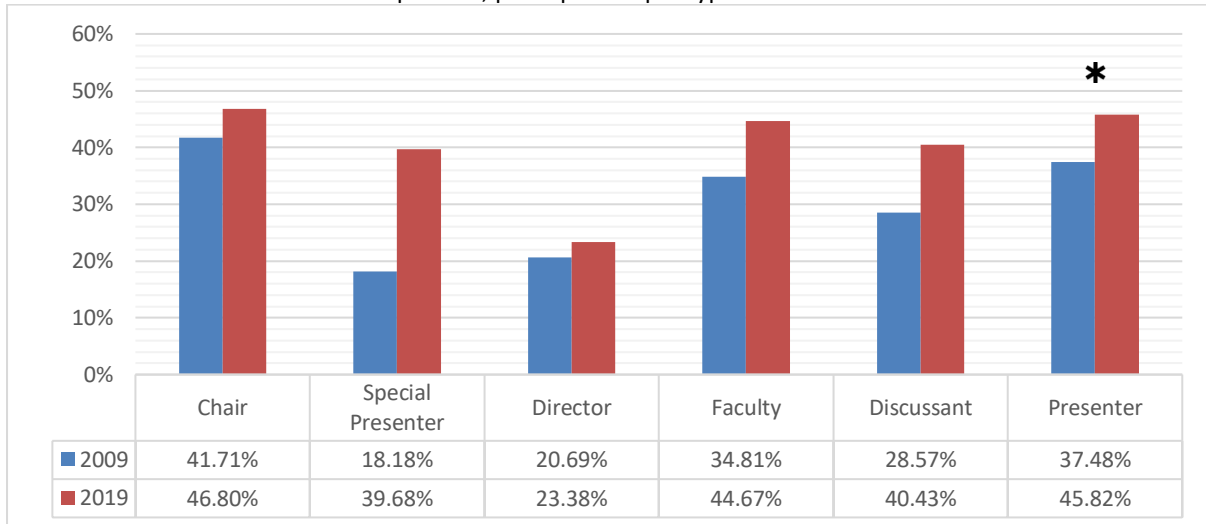


FIGURE 1a. Women rate per role, 2009 vs 2019. * Significant difference with p -value <0.05 .

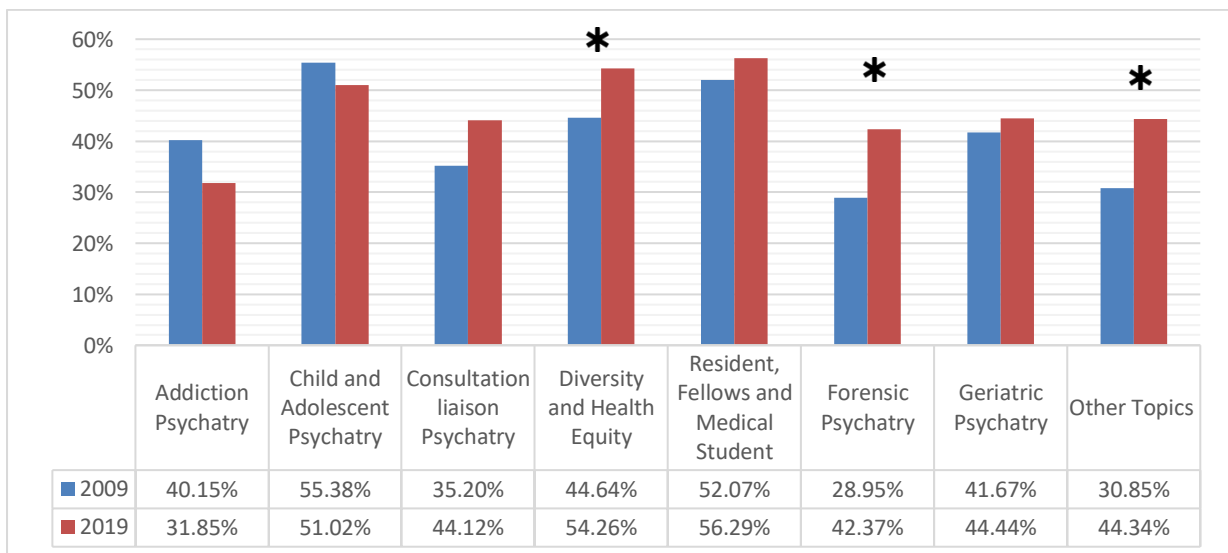


FIGURE 1b. Women rate per topic, 2009 vs 2019. * Significant difference with p -value <0.05 .

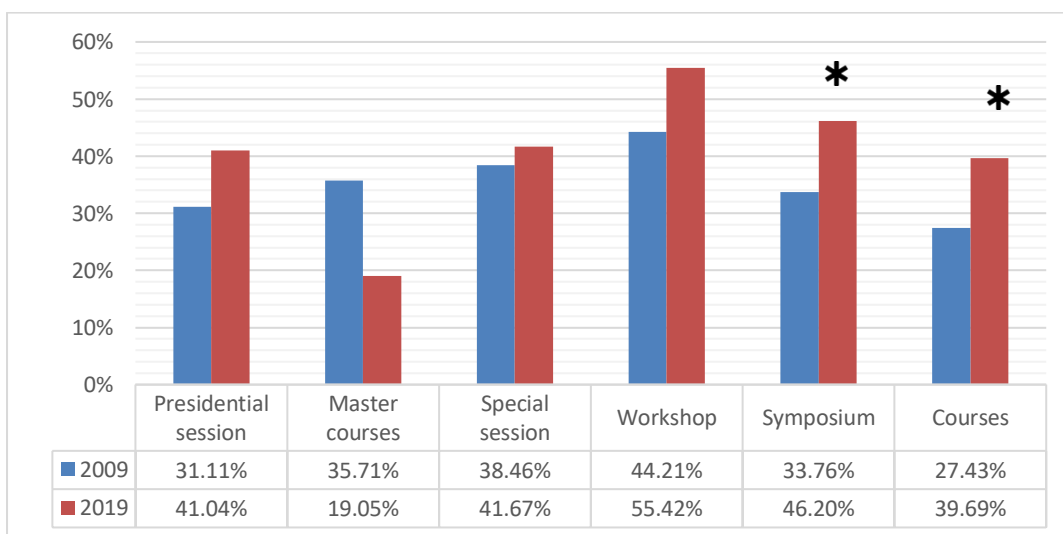


FIGURE 1c. Women rate per type of session, 2009 vs 2019. * Significant difference with p -value <0.05 .

Figure 2. Evolution rate per role, topic and type of session, between 2009 and 2019

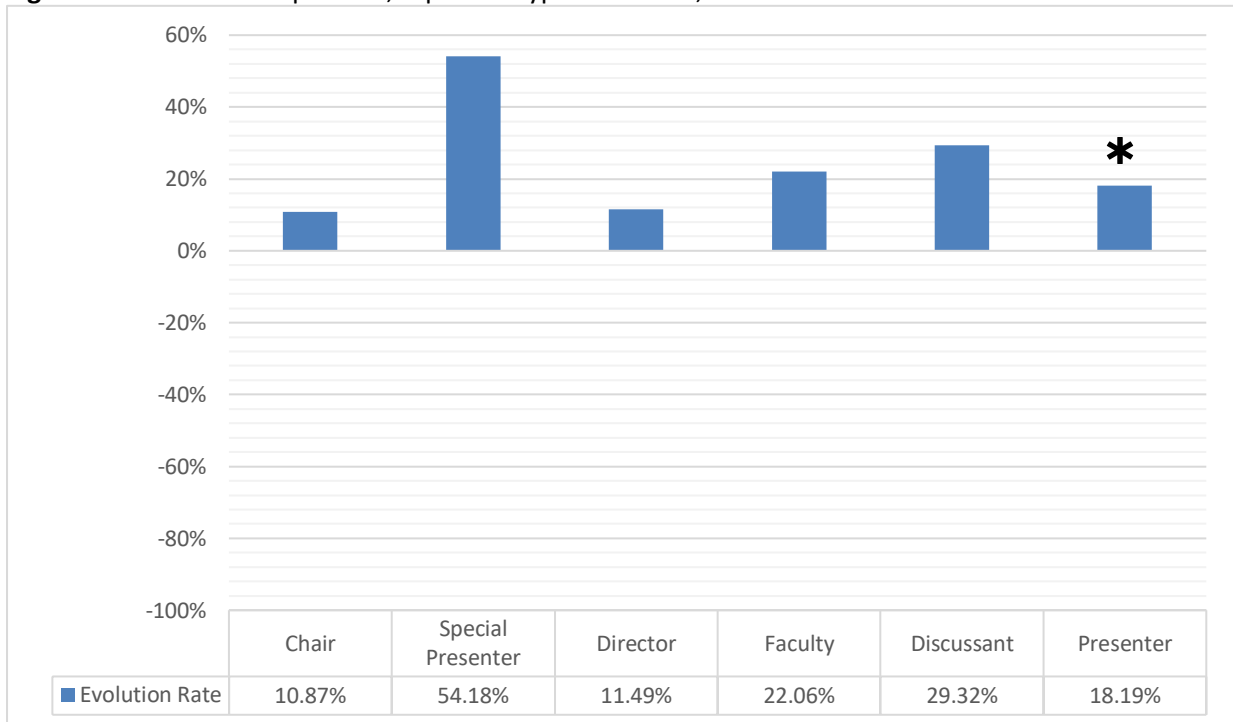


Figure 2a. Evolution rate per role. * Significant difference with p -value <0.05 .

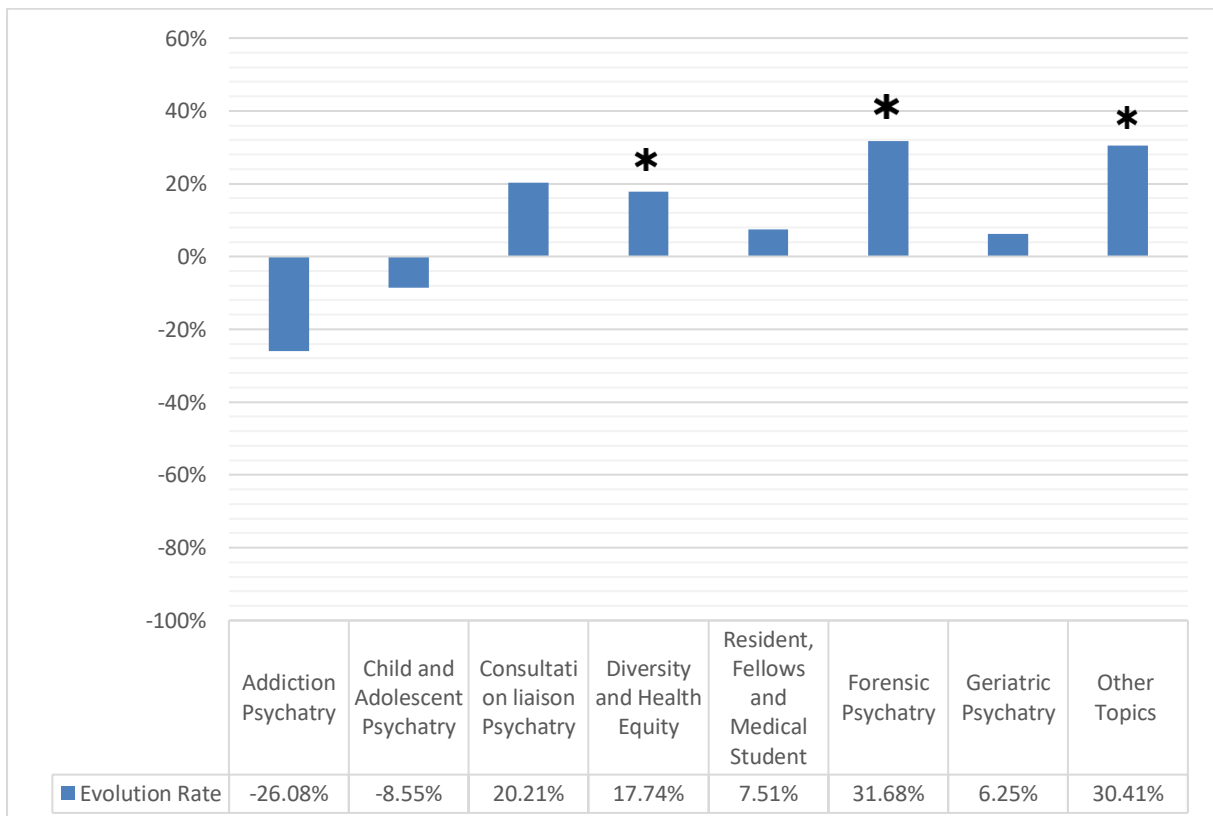


Figure 2b. Evolution rate per topic. * Significant difference with p -value <0.05 .

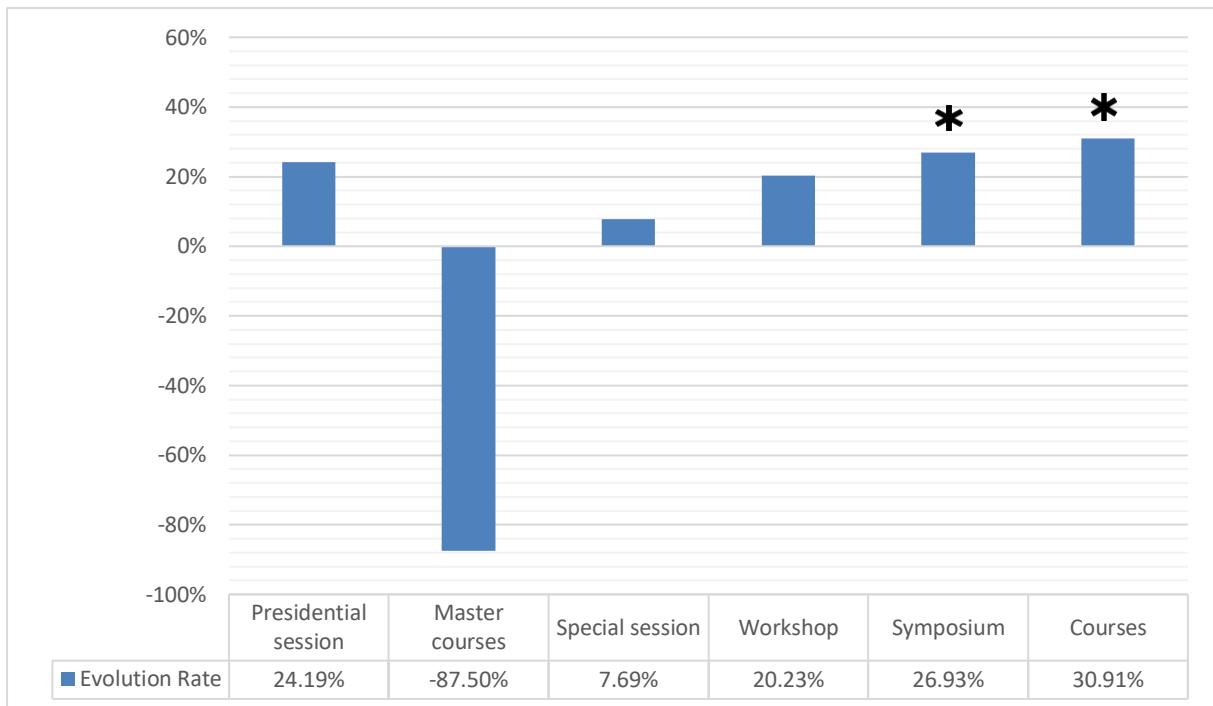


Figure 2c. Evolution rate per topic. * Significant difference with p -value <0.05 .

DISCUSSION

In this paper, we analyzed the evolution of the representation of female speakers between the 2009 and 2019 APA annual meetings. We extracted the speakers' names from the APA programs to identify them as female or male. We then collected the type of session, role and topic for each identified speaker. We also collected demographic data concerning the American psychiatry workforce. Descriptive and comparative analysis were performed. Among the total number of speakers, 45% were women in 2019 versus 37% in 2009, reflecting an increase in the representation of women at the APA annual meeting in the last ten years. The representation of female speakers was higher in almost all the different types of sessions, roles and topics.

The representation of female chairs increased between 2009 and 2019. Although this increase was not statistically significant, it could suggest that women take more leadership positions at the APA annual meeting now than ten years ago. In the same way, the number of female special presenters increased between 2009 and 2019, but not significantly. The absence of a significant difference of the representation of female special presenters in the last decade could be explained by the low number of subjects in this category, inducing a low statistical power. Finally, female presenters were more represented in 2019 than 2009. Presenters constitute the largest category among the different roles. This underlines that women are more present at the APA annual meeting in 2019 than 2009.

Women were significantly more present in diversity and health equity sessions in 2019 than 2009. Consequently, they constituted the majority of the speakers in diversity and health equity sessions in 2019. Indeed, women seem to be more interested in equity matters as they may feel more concerned about it. Interestingly, the proportion of female speakers increased significantly in forensic psychiatry between 2009 and 2019. In contrast, the representation of women in child and adolescent psychiatry decreased, although not significantly. Comparatively, women representation in the child and adolescent psychiatry workforce rose in the US between 2007 and 2017. These data also show that women seem to be overrepresented in child and adolescent psychiatry at the APA meeting back in 2009. However, as data on the child and adolescent psychiatry workforce was not available for 2009, we used the demographics from 2007. The two years gap could explain the difference observed between women representation in the workforce and at the child and adolescent psychiatry sessions in

2009. Nevertheless, the representation of women in addiction psychiatry decreased between 2009 and 2019, though not significantly.

Results showed that women representation at the APA annual meeting increased in the last decade. At the same time, women representation in honorific sessions did not increase significantly. Indeed, in presidential and special sessions, women representation increased between 2009 and 2019, but not significantly. Inversely, women representation in master courses fell dramatically during this decade, although not significantly. This lack of significance could be explained by the low number of speakers in these categories. Nevertheless, the representation of women in honorific sessions seems to reflect the lower representation of women in academic medicine.

Strengths and limits

To our knowledge, this is the first time that sex equity was assessed in a major international psychiatric meeting as large as the APA annual meeting. Plus, as the APA meeting gathers a high number of speakers, the results obtained possess a high statistical power. This high statistical power allowed for interpretation of the results observed. One of the strengths of our study is that it did not just assess the evolution of the proportion of female speakers at the APA meeting. Our work took into consideration the type of sessions, the type of roles and the topics in which the speaker was participating. This analysis allowed us to pinpoint the specific areas where representation of women increased whereas some others still need improvement. Another strength of our work is that it did not use an automatic tool to identify the sex for each speaker. Indeed, a systematic google search of the name of the speaker was performed. In addition, sex identification was performed by two authors. Therefore, the risk of wrong sex assignment is quite low in this study.

There are limits to this study. First, the APA annual meeting gathers speakers from the US but also other countries. Consequently, a good part of the speakers at the APA annual meeting were probably not American. Yet, the demographics collected for comparison include only the US workforce. This is due to the lack of international data on the percentage of female psychiatrists. Another limit is that a part of the speakers at the APA annual meeting were not psychiatrists. Speakers could be physicians from other specialties, but also residents, psychologists, researchers, philosophers, or jurists. This makes the comparison to the

psychiatrist workforce less pertinent. Nevertheless, psychiatrists constituted the majority of the speakers, lessening the importance of this bias. One of the limits of our work is that the data was obtained from the annual meetings programs. However, it did not take into account last-minute changes or cancellations during the meetings. This could have led to wrong data collection. Still, changes in programs do not happen frequently and only take a small part of the whole program. As a consequence, the corresponding bias can be considered minor. Another source of bias in our analysis could have come from the method used to homogenize the difference of categories between 2009 and 2019. Indeed, the 2009 and 2019 programs differed in their design but also in the semantics used. As a result, categories that existed in 2009 disappeared in 2019 and new categories appeared in 2019. To make the comparison possible between the programs, we took the party to gather the categories according to the definitions proposed in each program. Yet, some definitions did not match precisely and all the terms were not defined. Consequently, wrong matching between categories could have happened. This is however reduced by the fact that ambiguous terminology gathered only small numbers. A final shortcoming of our work is that it did not evaluate sex equity for each session according to the sex of the chair. Indeed, Isbell et al. showed that female chairs respect more sex equity in the choice of the speakers than male chairs (26). This evaluation of the impact of the sex of the chair on the choice of the speaker at the APA annual meetings could be done in a future work.

Literature review

This study is, according to our knowledge, the first that evaluates precisely the rate of women among APA annual meeting speakers. However, the same work has been done in other specialties. Sleeman et al. showed that more women than men were speaking at palliative care conferences. This was concordant with the fact that the palliative care workforce counted more women than men. Nevertheless, they also found that there were fewer women invited as plenary speakers, one of the most honorific roles. Indeed, the percentage of women plenary invited speakers was only 25% (24). In surgery conferences, sex equity seems harder to obtain. Indeed, some sessions include an “all-male panel”(11), and evolution of sex equity among speakers across time appears quite low (14). These facts should however be considered carefully as women are less present in the surgery workforce compared to the medical workforce (11,14). In critical care conferences, female speakers are underrepresented when compared to the percentage of women in the critical care workforce (25). In emergency medicine, Carley et al.

showed that women speak less frequently and with a shorter speech than men during meetings (8).

In contrast with our work, Pierron et al. did find an underrepresentation of female speakers during the French annual psychiatry meetings between 2009 and 2018, despite a slow improve. Like in our paper, women were also more represented in child and adolescent psychiatry sessions. They underlined a low representation of women in chairs, which was not found in our work (15). In Australia, sex equity was achieved at the Victorian Branch Conference one year after the program committee became aware of the gender gap (16). These differences of evolution and representation observed between the American, French and Australian psychiatry annual meetings could be explained by the cultural particularities in each country. The policy of each program committee could also play an important part in sex equity among speakers.

Hypothesis

This work shows the positive evolution of the representation of women speakers at the APA annual meeting between 2009 and 2019. One of the hypotheses that could explain this favorable evolution is the APA policy on equity and diversity. First, APA is one of the few medical society respecting sex equity in the choice of their presidents (20). This could have impacted the selection of their speakers at the annual meetings. Second, the program committee of the APA 2009 and 2019 consisted of 50% of women and 50% of men. Sex parity in the committee program could favorize sex parity in the choice of speakers (27). The APA is also an active partner organizer of the Women's Wellness Through Equity and Leadership (WEL) Program, that promotes women career evolution.

Although the APA promotes sex equity, part of the APA annual meetings did not respect sex equity in the choice of the speakers. Women were underrepresented in master courses but also in honorific roles like special presenter and director. One of the hypotheses explaining this underrepresentation could be that less women were invited to hold these positions. This might be because of a reduced visibility of women in the academic field which in turn comes from lower opportunity to present their work as an invited speaker at meetings. Breaking that circle might increase women visibility in academic medicine and make them more prone to be invited as speakers (28). Another explanation might be that while women made up to 42% of the

psychiatry workforce in 2019, they are still underrepresented in academic medicine. Indeed, only 22% of the department chairs in psychiatry were women in 2018 (23). The lack of women in leadership positions in psychiatry might be a reflection of what is called the “glass ceiling”. The “glass ceiling” represents all the invisible and artificial barriers that stop women from getting access to senior leadership despite their high representation in the field (29,30). Another reason for the lower rate of women in honorific positions could come from women themselves. Indeed, women were found to turn down invitations more than men in evolutionary biology symposia. The absence of childcare at the meetings, low self-promotion or lower perception of their ability and success could lead women to turn down invitations (28).

CONCLUSION

With this study, we managed to show a positive evolution of female speakers representation in the APA annual meeting between 2009 and 2019. This study also allowed us to highlight the specific roles, topics and sessions at the APA annual meeting where women are still lacking. As Casadevall et al. showed, pointing underrepresentation could improve the sex equity for next meeting (6).

Our results demonstrated that women were more represented at the APA annual meeting, when compared to the US psychiatry workforce. Even if women make up less than 50% of the psychiatrists in the US, it seems important to have a high women representation in the meetings. First, speaking in a meeting increases women visibility and can help younger students or physicians to find a woman role model in academic psychiatry. Second, the rate of female psychiatrists will probably grow quickly in the future years, as 53% of the residents in psychiatry were women in 2017.

We exposed, among others, a few hypotheses which could explain this favorable evolution between 2009 and 2019. Additionally, recommendations are now available to help the program committee improve sex equity at their meetings. Martin et al. listed ten rules to achieve sex equity among speakers in conferences (31). Interestingly, the first rule is “collecting data” and the fifth one “reporting them”, as it was the purpose of this paper. We hope that this work will help promote sex equity in psychiatry meetings but also in academic medicine in general.

CONCLUSION (en Français)

Le but de notre étude était de recueillir le taux de femmes oratrices au congrès de l'APA en 2009 et 2019, par rôle, type de session et thématique, de comparer ce taux entre ces deux années ainsi que de le comparer aux taux de femmes psychiatres aux États-Unis. Nos résultats montrent globalement une évolution positive entre 2009 et 2019, avec une augmentation significative du nombre d'oratrices, qui constituent toujours moins de la moitié des intervenants au congrès mais ne sont pas sous-représentées comparativement au pourcentage de femmes exerçant la psychiatrie aux États-Unis. Ces résultats vont dans le sens des déclarations publiques de l'APA, promouvant l'intégration de différentes populations généralement sous-représentée, notamment les femmes (17–19).

Cette étude nous a permis aussi d'identifier les points à améliorer, comme la représentation des femmes dans les sessions plus "honorifiques" telles que les master courses. L'étude du taux de femmes présidentes de session est particulièrement intéressant, étant donné que plusieurs papiers ont mis en avant qu'une augmentation du taux de femmes à cette position augmentait significativement la parité des sessions en général (11,27,32,33). En termes de thématique abordée, les femmes sont plus présentes en pédopsychiatrie, ce qui concorde avec la proportion des praticiennes. Elles sont aussi plus présentes dans les sessions sur la diversité et l'égalité en santé, sujet pour lesquelles elles se sentent probablement plus concernées.

Concernant la littérature existante, plusieurs sociétés savantes rapportaient une sous-représentation des femmes à leurs congrès (8,11,14,25), avec la plupart du temps une évolution tout de même favorable dans le temps. Le congrès de l'APA serait donc plutôt un modèle à suivre, à l'instar du congrès de microbiologie (6).

Plusieurs hypothèses peuvent expliquer cette évolution favorable. En s'intéressant au comité organisateur du congrès de l'APA, nous avons remarqué que la parité y est respectée dans les deux congrès étudiés, ce qui a pu augmenter la parité dans les sessions (27). Ainsi en 2009, la présidente de l'association était une femme, Altha Stewart. D'autres efforts peuvent augmenter la proportion de femmes aux congrès, comme par exemple l'existence de solution pour la garde d'enfant, ou l'existence d'un "annuaire" de professionnel recensant les femmes expertes dans tel ou tel domaine (28,34). Il existe désormais des conseils ou lignes directrices pour travailler sur la parité en congrès, comme les 10 "règles" de Martin et al. (31).

Étant donné l'augmentation du nombre de femmes sur les bancs des facultés de médecine et d'internes en psychiatries féminines, il semble important qu'il y ait une bonne représentation des femmes aux congrès de spécialité, pouvant servir de mentor ou de "role-model" aux futures praticiennes, afin d'accroître encore la parité dans la pratique de la psychiatrie, en recherche et dans les positions de leadership. Nous espérons qu'une bonne représentation des femmes au congrès puisse être un des éléments permettant de briser le "plafond de verre", qui constitue l'ensemble des barrières invisibles, rendant plus difficile aux femmes les hautes évolutions de carrière.

Bibliographie

1. Silver JK, Bean AC, Slocum C, Poorman JA, Tenforde A, Blauwet CA, et al. Physician Workforce Disparities and Patient Care: A Narrative Review. *Health Equity*. 1 juill 2019;3(1):360-77.
2. Heidari S, Babor TF, De Castro P, Tort S, Curno M. Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use. *Res Integr Peer Rev* [Internet]. 3 mai 2016 [cité 14 août 2020];1. Disponible sur: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5793986/>
3. Gordon F. French psychiatry and the new woman: the case of Dr Constance Pascal, 1877–1937. *Hist Psychiatry*. juin 2006;17(2):159-82.
4. Ministère de l'enseignement supérieur, de la recherche et de l'innovation. ESRI : chiffres-clés de l'égalité femmes-hommes [Internet]. Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation. [cité 27 août 2020]. Disponible sur: [//www.enseignementsup-recherche.gouv.fr/pid38153-127382/esri-chiffres-cles-de-l-egalite-femmes-hommes-parution-2018.html](http://www.enseignementsup-recherche.gouv.fr/pid38153-127382/esri-chiffres-cles-de-l-egalite-femmes-hommes-parution-2018.html)
5. Rosso C, Leger A, Steichen O. Plafond de verre pour les femmes dans les carrières hospitalo-universitaires en France. *La Revue de Médecine Interne*. févr 2019;40(2):82-7.
6. Casadevall A. Achieving Speaker Gender Equity at the American Society for Microbiology General Meeting. *Imperiale MJ*, éditeur. *mBio*. 4 août 2015;6(4):e01146-15.
7. Larson AR, Sharkey KM, Poorman JA, Kan CK, Moeschler SM, Chandrabose R, et al. Representation of Women Among Invited Speakers at Medical Specialty Conferences. *Journal of Women's Health*. 1 avr 2020;29(4):550-60.
8. Carley S, Carden R, Riley R, May N, Hruska K, Beardsell I, et al. Are there too few women presenting at emergency medicine conferences? *Emerg Med J*. oct 2016;33(10):681-3.
9. Dumitra TC, Trepanier M, Lee L, Fried GM, Mueller CL, Jones DB, et al. Gender distribution of speakers on panels at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) annual meeting. *Surg Endosc* [Internet]. 11 oct 2019 [cité 14 juill 2020]; Disponible sur: <http://link.springer.com/10.1007/s00464-019-07182-2>
10. Casadevall A, Handelsman J. The Presence of Female Conveners Correlates with a Higher Proportion of Female Speakers at Scientific Symposia. *Miller JF*, éditeur. *mBio*. 7 janv 2014;5(1):e00846-13.
11. Gerull KM, Wahba BM, Goldin LM, McAllister J, Wright A, Cochran A, et al. Representation of women in speaking roles at surgical conferences. *The American Journal of Surgery*. juill 2020;220(1):20-6.
12. Talwar R, Bernstein A, Jones A, Crook J, Apolo AB, Taylor JM, et al. Assessing Contemporary Trends in Female Speakership within Urologic Oncology. *Urology*

[Internet]. 13 août 2020 [cité 21 août 2020]; Disponible sur:
<http://www.sciencedirect.com/science/article/pii/S0090429520309857>

13. Ruzycki SM, Fletcher S, Earp M, Bharwani A, Lithgow KC. Trends in the Proportion of Female Speakers at Medical Conferences in the United States and in Canada, 2007 to 2017. *JAMA Netw Open*. 12 avr 2019;2(4):e192103.
14. Silva N, Cerasiello S, Semonche A, Sotayo A, Luis J, Shao B, et al. Gender Representation at Neurological Surgery Conferences. *World Neurosurgery*. sept 2019;129:453-9.
15. Pierron J, Dirani EE, Sanchez S, El-Hage W, Hingray C. Sous-représentation des femmes intervenant dans les congrès de psychiatrie en France. *L'Encéphale*. mars 2020;S0013700620300257.
16. Golding PM. Overcoming the gender gap: increasing gender diversity, scientific scholarship and social legitimacy of our profession. *Australas Psychiatry*. juin 2015;23(3):222-5.
17. Stewart AJ. APA on Its 175th Anniversary: Examining Our Past to Ensure a Strong Future. *AJP*. août 2019;176(8):603-5.
18. APA's Vision, Mission, Values, and Goals [Internet]. [cité 14 août 2020]. Disponible sur: <https://www.psychiatry.org/about-apa/vision-mission-values-goals>
19. Position Statement on Psychiatrists From Underrepresented Groups in Leadership Roles. *AJP*. mars 1995;152(3):482-482.
20. Silver JK, Ghalib R, Poorman JA, Al-Assi D, Parangi S, Bhargava H, et al. Analysis of Gender Equity in Leadership of Physician-Focused Medical Specialty Societies, 2008-2017. *JAMA Intern Med*. 1 mars 2019;179(3):433-5.
21. Hirshbein LD. History of Women in Psychiatry. *Academic Psychiatry*. 1 déc 2004;28(4):337-44.
22. Active Physicians by Sex and Specialty, 2017 [Internet]. AAMC. [cité 14 août 2020]. Disponible sur: <https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-sex-and-specialty-2017>
23. The State of Women in Academic Medicine 2018-2019: Exploring Pathways to Equity. :49.
24. Sleeman KE, Koffman J, Higginson IJ. Leaky pipeline, gender bias, self-selection or all three? A quantitative analysis of gender balance at an international palliative care research conference. *BMJ Support Palliat Care*. juin 2019;9(2):146-8.
25. Mehta S, Rose L, Cook D, Herridge M, Owais S, Metaxa V. The Speaker Gender Gap at Critical Care Conferences: *Critical Care Medicine*. juin 2018;46(6):991-6.
26. Isbell LA, Young TP, Harcourt AH. Stag Parties Linger: Continued Gender Bias in a Female-Rich Scientific Discipline. *PLOS ONE*. 21 nov 2012;7(11):e49682.

27. Sardelis S, Drew JA. Not “Pulling up the Ladder”: Women Who Organize Conference Symposia Provide Greater Opportunities for Women to Speak at Conservation Conferences. Pavlova MA, éditeur. PLoS ONE. 28 juill 2016;11(7):e0160015.
28. Schroeder J, Dugdale HL, Radersma R, Hinsch M, Buehler DM, Saul J, et al. Fewer invited talks by women in evolutionary biology symposia. J Evol Biol. sept 2013;26(9):2063-9.
29. Latour E. Le plafond de verre universitaire : pour en finir avec l’illusion méritocratique et l’autocensure. Mouvements. 2008;55-56(3):53.
30. Lieberman JA, Ehrhardt AA, Simpson HB, Arbuckle MR, Fyer AJ, Essock SM. Eliminating the Glass Ceiling in Academic Psychiatry. Acad Psychiatry. 2018;42(4):523-8.
31. Martin JL. Ten Simple Rules to Achieve Conference Speaker Gender Balance. Bourne PE, éditeur. PLoS Comput Biol. 20 nov 2014;10(11):e1003903.
32. Kalejta RF, Palmenberg AC. Gender Parity Trends for Invited Speakers at Four Prominent Virology Conference Series. Sandri-Goldin RM, éditeur. J Virol. 15 août 2017;91(16):e00739-17, e00739-17.
33. Johnson CS, Smith PK, Wang C. Sage on the Stage: Women’s Representation at an Academic Conference. Pers Soc Psychol Bull. avr 2017;43(4):493-507.
34. Débarre F, Rode NO, Ugelvig LV. Gender equity at scientific events. Evolution Letters. juin 2018;2(3):148-58.

ANNEXE

SUPPLEMENTAL MATERIAL

Session	2009						2019						Pvalue ^(b)	Evolution Rate %
	Men		Women		Total	Pvalue ^(a)	Men		Women		Total	Pvalue ^(a)		
	n	%	n	%			n	%	n	%				
Presidential session	31	68.89	14	31.11	45	0,0160	102	58.96	71	41.04	173	0,0248	0,2237	24,19
Master courses	9	64.29	5	35.71	14	0,2252	17	80.95	4	19.05	21	0,0071	0,2690	-87,50
Special session	8	61.54	5	38.46	13	0,2822	14	58.33	10	41.67	24	0,2858	0,8496	7,69
Workshop	236	55.79	187	44.21	423	0,0233	37	44.58	46	55.42	83	0,2449	0,0609	20,23
Symposium	418	66.24	213	33.76	631	<0,0001	1090	53.80	936	46.20	2026	0,0011	<0,0001	26,93
Courses	172	72.57	65	27.43	237	<0,0001	79	60.31	52	39.69	131	0,0246	0,0155	30,91

Comparison of men and women proportion in sessions by type

- (a) comparison within each year with hypothesis proportion of 50%,
 (b) 2009 vs 2019 comparison

Roles	2009						2019						Pvalue ^(b)	Evolution Rate %
	Men		Women		Total	Pvalue ^(a)	Men		Women		Total	Pvalue ^(a)		
	n	%	n	%			n	%	n	%				
Chair	218	58.29	156	41.71	374	0,0023	598	53.20	526	46.80	1124	0,0397	0,7112	10,87
Special Presenter	18	81.82	4	18.18	22	0,0046	76	60.32	50	39.68	126	0,0272	0,5879	54,18
Director	92	79.31	24	20.69	116	<0,0001	59	76.62	18	23.38	77	<0,0001	0,9991	11,49
Faculty	88	65.19	47	34.81	135	0,0007	10	55.33	88	44.67	197	0,1302	0,6654	22,06
Discussant	15	71.43	6	28.57	21	0,0579	84	59.57	57	40.43	141	0,0300	0,8114	29,32
Présenter	462	62.52	277	37.48	739	<0,0001	1451	54.18	1227	45.82	2678	<0,0001	0,0059	18,19

Comparison of men and women proportion by roles

- (a) comparison within each year with hypothesis proportion of 50%,
 (b) 2009 vs 2019 comparison

Topics	2009						2019						Pvalue ^(b)	Evolution Rate %
	Men		Women		Total	Pvalue ^(a)	Men		Women		Total	Pvalue ^(a)		
	n	%	n	%			n	%	n	%				
Addiction Psychiatry	79	59.85	53	40.15	132	0,0308	107	68.15	50	31.85	157	<0,0001	0,1420	-26,08
Child and Adolescent Psychiatry	29	44.62	36	55.38	65	0,2736	72	48.98	75	51.02	147	0,3869	0,6574	-8,55
Consultation liaison Psychiatrie	81	64.80	44	35.20	125	0,0016	57	55.88	45	44.12	102	0,1969	0,1710	20,21
Diversity and Health Equity	129	55.36	10	44.64	233	0,1043	102	45.74	121	54.26	223	0,01775	0,0398	17,74
Resident, Fellows and Medical Student	58	47.93	63	52.07	121	0,3597	125	43.71	161	56.29	286	0,0413	0,4332	7,51
Forensic Psychiatry	81	71.05	33	28.95	114	<0,0001	102	57.63	75	42.37	177	0,0508	0,0206	31,68
Geriatric Psychiatry	21	58.33	15	41.67	36	0,2419	25	55.56	20	44.44	45	0,3021	0,8019	6,25
Other Topics	381	69.15	170	30.85	551	<0,0001	806	55.66	642	44.34	1448	<0,0001	<0,0001	30,41

Comparison of men and women proportion by topic

- (a) comparison within each year with hypothesis proportion of 50%,
 (b) 2009 vs 2019 comparison

Vu, le Directeur de Thèse



Vu, le Doyen
De la Faculté de Médecine de Tours
Tours, le

Bailly Sophie Anne Sebbane Sabrina

44 pages – 4 tableaux – 6 figures

Résumé :

Introduction-La parité hommes/femmes est un enjeu sociétal majeur. L'objectif de notre étude était de décrire l'évolution de la représentation des femmes au congrès de psychiatrie de l'American Psychiatric Association et de la comparer à l'évolution de la représentation des femmes parmi les psychiatres américains.

Méthode-Les données ont été obtenues à partir des programmes du congrès de l'American Psychiatric Association de 2009 et de 2019, et auprès de l'Association of American Medical Colleges. Des analyses statistiques descriptives et comparatives ont été réalisées.

Résultats-Entre 2009 et 2019, la proportion de femmes intervenant au congrès de l'American Psychiatric Association a augmenté significativement (respectivement 37% vs 45%). La proportion de femmes intervenant au congrès est quasiment équivalente à la proportion de femmes parmi les psychiatres américains. La proportion de femmes présidentes de session n'a pas augmenté significativement entre 2009 (42%) et 2019 (47%). La proportion de femmes intervenant sur des thèmes de pédopsychiatrie était supérieure à la proportion d'hommes en 2009 (55%) et en 2019 (51%).

Conclusion-La représentation des femmes au congrès de l'American Psychiatric Association a augmenté entre 2009 et 2019, malgré une évolution plus lente de la proportion des femmes parmi les psychiatres américains. L'American Psychiatric Association semble ainsi favoriser la représentation des femmes lors de ses congrès.

Mots clés : parité hommes femmes, congrès, psychiatrie, American Psychiatric Association, évolution

Jury :

Président du Jury : Professeur Nicolas BALLON

Directeur de thèse : Professeur Wissam EL HAGE

Membres du Jury : Professeur Wissam EL HAGE
Professeur Benedicte GOHIER
Docteur Coraline HINGRAY
Docteur Corinne VAILLANT

Date de soutenance : 29 septembre 2020