

Université
de Liège



Faculté de Psychologie et des Sciences de l'Education

**ETUDE DE L'IMPACT D'INTERVENTIONS
PSYCHOLOGIQUES PREVENTIVES SUR LE BURNOUT
DES MEDECINS**

Isabelle Bragard

**Thèse présentée en vue de l'obtention
du titre de Docteur en Psychologie**

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Promotrice : Dr. A.-M. Etienne

Membres du jury: Dr A.-M. Etienne, Dr. I. Hansez, Prof. C.
Reynaert, Prof. E. Spitz, Prof. J. Boniver et Pr. D. Razavi

Mars 2008

À Stéphane, Guillaume et Victor
À mes parents

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AVANT-PROPOS

La psycho-oncologie est un domaine en pleine expansion s'intéressant de plus en plus à répondre aux problèmes psychologiques rencontrés par les patients cancéreux. Ces patients demandent une prise en charge à la fois médicale et psychologique. Cependant, la formation initiale des médecins travaillant dans ce domaine se focalise généralement sur les aspects techniques et médicaux des soins, ne laissant que très peu de place aux aspects relationnels et communicationnels. Ceci peut expliquer en partie les difficultés de communication rencontrées par les médecins. Ces difficultés et le stress qu'elles engendrent contribuent au développement du burnout parmi les médecins travaillant dans ce domaine, et entravent par conséquent la qualité des soins apportés aux malades. Face à cela, les médecins se montrent de plus en plus intéressés par l'acquisition de compétences en communication et en gestion du stress afin de mieux répondre à la demande des patients cancéreux qu'ils rencontrent et de se préserver du burnout.

C'est dans ce cadre que notre équipe de recherche interuniversitaire a proposé à partir de 1998 des formations à la communication et à la gestion du stress aux médecins spécialistes et candidats-spécialistes travaillant dans ce domaine. Un premier projet de recherche interuniversitaire ULB-UCL-ULg soutenu par la section Télévie du Fonds National de la Recherche Scientifique (1998-2002) intitulé « *Acquisition et utilisation par les médecins de compétences en communication : un facteur contribuant au soutien des malades et de leurs proches* » a proposé un programme de formation à la communication aux médecins spécialistes en oncologie. Différents travaux issus de ce projet de recherche ont déjà montré l'efficacité du programme de formation au niveau de l'amélioration des compétences en communication des médecins avec des patients cancéreux et leur famille [1, 2] et de la détection de leur détresse [3, 4], l'influence du vécu subjectif de contrôle des médecins sur cet apprentissage de stratégies de communication [5-7], et l'influence de certaines stratégies de communication sur l'anxiété des patients cancéreux en consultation [8]. Le premier article de ce travail de thèse s'inscrit à la suite de ces travaux et vise à tester l'impact du programme de formation à la communication sur le niveau de burnout des médecins spécialistes en oncologie et à identifier les prédicteurs et corrélats des changements dans leur niveau de burnout.

Un second projet de recherche interuniversitaire ULB-UCL-ULg soutenu par la section Télévie du Fonds National de la Recherche Scientifique (2002-2008) intitulé

« *Le stress de communiquer avec les patients cancéreux et leurs proches : une étude des corrélats psychobiologiques liés à l'acquisition et à l'utilisation par les médecins de compétences en communication* » a ensuite proposé un programme de formation à la communication et à la gestion du stress à des médecins candidats-spécialistes de diverses spécialisations. Les trois derniers articles de ce travail de thèse s'appuient sur ce projet. Ils visent d'une part, à tester l'impact de ce nouveau programme de formation sur le stress de communiquer en consultation avec des patients cancéreux et leur famille, le sentiment d'efficacité personnelle concernant la communication et la gestion du stress en consultation et le niveau de burnout de médecins candidats-spécialistes et d'autre part, à identifier les prédicteurs et corrélats des changements dans leur niveau de burnout.

La première partie de ce travail expose brièvement différents points théoriques permettant de comprendre le cheminement de notre réflexion. Ensuite, sont présentés successivement les objectifs et les quatre articles constituant ce travail de thèse et enfin la discussion générale relative à ces articles.

INTRODUCTION GENERALE

Le burnout

1. Historique du concept

L'utilisation du terme burnout apparaît de façon régulière dans les années 70 aux USA [9]. En 1975, Freudenberger utilise ce terme pour caractériser l'état mental de jeunes volontaires travaillant auprès de toxicomanes [10]. À peu près à la même époque, Maslach utilise elle aussi le terme burnout auprès de professionnels de sauvetage et des urgentistes [11]. Devenu familier, ce terme était appliqué à des collègues ayant développé 'une attitude cynique, insensible et négative' vis-à-vis des personnes qu'ils prenaient en charge. Il fait alors référence à un problème social et non à une problématique théorique [12]. Les fondements de la recherche sur le burnout se situent donc au niveau des professions d'aide, où le centre du travail est la relation entre celui qui fournit le service et celui qui le reçoit. Ce contexte interpersonnel de travail signifie que depuis le début, le burnout a été étudié non seulement comme une réponse individuelle de stress, mais également en référence aux transactions relationnelles d'un individu sur son lieu de travail [9].

Dans les années 80, apparaissent des recherches empiriques plus systématiques, utilisant des questionnaires. L'instrument de mesure le plus souvent utilisé est le Maslach Burnout Inventory (MBI) [13]. Cette orientation plus empirique s'est accompagnée de contributions théoriques et méthodologiques du champ de la psychologie organisationnelle. Le burnout y est considéré comme une forme de stress au travail, ayant des liens avec d'autres concepts comme la satisfaction au travail, l'engagement organisationnel et le turnover [9].

Dans les années 90 et 2000, cette phase empirique s'est poursuivie dans différentes directions. Le concept de burnout s'est étendu à des professions autres que les services humains ou les enseignants. Des études longitudinales ont commencé à apparaître, notamment pour évaluer l'impact d'interventions pour diminuer le burnout [9]. Enfin, l'étude du burnout s'est enrichie de celle de l'engagement professionnel –son opposé positif [14-17].

2. Définition du burnout

Plusieurs définitions existent dans la littérature. La définition la plus courante est celle de Maslach et Jackson qui définissent le burnout comme un syndrome psychologique susceptible d'apparaître chez des individus qui travaillent avec d'autres individus, en réponse à des stressors émotionnels et interpersonnels présents depuis un certain temps sur le lieu de travail [18]. Il comprend trois dimensions : l'épuisement émotionnel, la dépersonnalisation et la diminution du sentiment d'accomplissement personnel [9, 18].

La dimension d'épuisement émotionnel représente la réponse basique de stress. Elle se réfère à la sensation d'être dépassé dans ses ressources émotionnelles et physiques [9]. Intérieurement, la personne a la sensation d'être vidée et éprouve des difficultés à être en relation avec les émotions de l'autre [12]. L'épuisement conduit le travailleur à engager d'autres actions pour se distancier émotionnellement et cognitivement de son travail [19].

La dimension de dépersonnalisation se réfère au contexte interpersonnel. Elle représente une réponse négative ou excessivement détachée envers d'autres personnes [9]. Elle est utilisée comme une stratégie de coping (stratégie cognitive ou comportementale mise en place par l'individu pour gérer des exigences externes et/ou internes évaluées comme menaçant ou excédant ses ressources [20]) pour gérer l'épuisement [21]. Cette deuxième dimension est marquée par un détachement et une sécheresse relationnelle s'apparentant au cynisme. La personne est considérée comme un objet. Cette mise à distance de l'autre est ressentie comme une forme d'échec personnel qui peut s'exprimer plus ou moins ouvertement dans la troisième dimension du syndrome [12].

La dimension de perte d'accomplissement personnel représente la dimension d'auto-évaluation du burnout. Elle fait référence aux sentiments d'incompétence et d'inefficacité, de manque de réussite et de productivité au travail [9]. La relation à l'autre est le fondement du travail du soignant et sa motivation principale de ce choix professionnel. Constatant la distanciation, la personne va le ressentir comme un échec. Ainsi apparaissent la dévalorisation de soi, la culpabilité et la démotivation [12].

A l'origine, le burnout était considéré comme survenant exclusivement dans les services humains [22]. Cependant, des preuves empiriques ont progressivement démontré que le burnout peut se manifester dans d'autres populations que les professions d'aide [14, 23]. Les trois dimensions constituant le burnout ont été

généralisées et renommées : épuisement (fatigue sans référence aux autres personnes comme source de cette fatigue), cynisme (indifférence, attitude distante vis-à-vis du travail en général et pas nécessairement des autres), et perte d'efficacité professionnelle (englobant des aspects sociaux et non sociaux de l'accomplissement professionnel) [24].

Plus récemment, une définition synthétique du burnout a été proposée par Schaufeli et Enzmann [25]. Selon cette définition, le burnout est un état d'esprit négatif relatif au travail apparaissant chez des personnes 'normales' qui se caractérise principalement par de l'épuisement, accompagné de détresse, d'un sens réduit d'efficacité, d'une diminution de la motivation et du développement d'attitudes et de comportements dysfonctionnels au travail. Cette condition psychologique se développe progressivement et peut rester longtemps inaperçue pour la personne impliquée. Elle résulte d'une inadéquation entre les attentes professionnelles et la réalité du travail. Elle est, de plus, souvent auto-entretenu par des stratégies de coping inadéquates associées à ce syndrome [25].

3. Spécificité du burnout

Les signes cliniques du burnout n'ont rien de spécifique. Sur le plan physique, ils regroupent notamment de la fatigue, des céphalées, des troubles digestifs variés et des troubles du sommeil. Sur le plan comportemental, il s'agit de manifestations inhabituelles pour le sujet comme une irritabilité trop fréquente, une sensibilité accrue aux frustrations, une labilité émotionnelle et une attitude cynique [12].

Peu d'éléments distinguent ces symptômes de la symptomatologie décrite dans la pathologie du stress ou des troubles dépressifs. Pourtant, il est important de distinguer ces différents syndromes. D'abord, le burnout peut être considéré comme un type particulier de stress professionnel, dans lequel un pattern d'épuisement émotionnel, de dépersonnalisation et de diminution d'accomplissement personnel résulte de nombreuses exigences professionnelles, particulièrement de nature interpersonnelle [21, 26]. Ensuite, la distinction avec la dépression a été établie empiriquement dans plusieurs études utilisant le Maslach Burnout Inventory et différentes mesures de dépression [27, 28]. Ces recherches ont montré que le burnout est un phénomène multidimensionnel spécifique au contexte du travail, en contraste

avec la dépression qui tend à toucher tous les domaines de la vie de la personne. Le burnout semble donc être un phénomène spécifique.

4. Relations causales entre les trois dimensions du burnout

Différents modèles concernant le développement du burnout ont été proposés. La compréhension de son développement n'a pas qu'une valeur théorique. Elle peut faciliter une reconnaissance précoce du burnout et la mise en place d'interventions efficaces [29, 30].

Parmi ces modèles, le modèle initial de Leiter et Maslach fait l'hypothèse que l'épuisement émotionnel apparaît en premier en réponse à des exigences professionnelles chroniques élevées [31]. La personne tente alors de mettre en place une distance mentale vis-à-vis des personnes et de son travail, c'est-à-dire une stratégie de coping face à ces stressseurs. Cela provoque des attitudes négatives vis-à-vis des bénéficiaires (dépersonnalisation) ou de son rôle au travail en général (cynisme). En conséquence, une attitude négative se développe concernant son accomplissement personnel au travail ainsi qu'un déclin dans les sentiments personnels de compétence et de réussite [31].

Un deuxième modèle, celui de Golembiewski et al. [32], propose qu'un niveau élevé de dépersonnalisation utilisée comme stratégie de coping face aux stressseurs professionnels soit la première phase. Comme Leiter et Maslach [31], ils considèrent qu'un certain niveau de détachement professionnel est nécessaire à la performance dans certaines professions. Cependant, à partir d'un certain point, ce détachement se transforme en dépersonnalisation, empêchant de mettre en place des relations avec les autres personnes et diminuant la performance, entraînant une diminution du sentiment d'accomplissement. L'épuisement émotionnel arrive ensuite, en réponse à la dépersonnalisation élevée et à la perte d'accomplissement personnel.

Lee et Ashforth ont comparé ces deux modèles pour en proposer un troisième [29]. Leur analyse a abouti à une variation du modèle de Leiter et Maslach où l'épuisement émotionnel est positivement associé à la dépersonnalisation (comme dans les modèles de Leiter et Maslach et de Golembiewski et al.) mais où l'accomplissement personnel se développe indépendamment de la dépersonnalisation. Des niveaux élevés d'épuisement émotionnel provoqueraient

directement une diminution du sentiment d'accomplissement personnel plutôt qu'indirectement à travers la dépersonnalisation.

Selon une revue de la littérature sur ce sujet, aucune étude longitudinale ne soutient un de ces trois modèles dans son ensemble [33]. Cependant, une étude a mis en évidence que, comme les deux premiers modèles, des niveaux plus élevés d'épuisement émotionnel provoquent des niveaux plus élevés de dépersonnalisation avec le temps. De plus, elle a également montré que des niveaux plus élevés de dépersonnalisation conduisent à des niveaux plus élevés d'épuisement émotionnel et plus faibles d'accomplissement personnel avec le temps. Ces résultats sous-entendent que le retrait psychologique de son travail ou dépersonnalisation est une stratégie de coping dysfonctionnelle. Alors qu'un certain détachement professionnel semble nécessaire, se détacher trop a des conséquences négatives. Cependant, davantage d'études sont nécessaires pour comprendre ce processus. L'hypothèse serait que les travailleurs trop 'détachés' pourraient trouver impossible de mettre en place des relations avec d'autres personnes. Ce comportement indifférent rendrait leur tâche plus difficile et augmenterait leur niveau d'épuisement [33].

Les recherches actuelles soutiennent l'idée que le burnout peut en effet être conceptualisé comme un processus développemental. Cependant, des études supplémentaires semblent nécessaires dans ce domaine.

5. Evaluation du burnout

Différents outils ont été développés pour mesurer les dimensions du burnout. Les principaux outils utilisés dans la littérature sont le Burnout Measure (BM) [34], le Maslach Burnout Inventory (MBI) [13, 18] et le Oldenburg Burnout Inventory (OLBI) [35].

Le BM évalue essentiellement le composant non spécifique du burnout c'est-à-dire l'épuisement émotionnel (non spécifique par ses points communs avec des plaintes somatiques ou une tension psychologique), et devrait être accompagné par une échelle qui mesure les autres composantes du syndrome [26].

Le MBI dans sa première version se base sur la théorie de Maslach [18] et peut être utilisé comme un indicateur valide et fiable du burnout auprès des professionnels qui travaillent avec des personnes. Il évalue les trois composantes principales du burnout (épuisement émotionnel, dépersonnalisation et perte d'accomplissement

personnel). Il est destiné aux services humains et des soins de santé (MBI-Human Services Survey ou MBI-HSS). Une seconde version a été développée pour le milieu de l'enseignement (MBI-Educators Survey, MBI-ES). Ensuite, une troisième version a été mise au point pour les professions qui ne sont pas orientées vers les personnes (MBI-General Survey, MBI-GS) [9]. Les trois dimensions du MBI-GS sont plus générales et ne font pas référence aux personnes avec lesquelles travaille le sujet (épuiement, cynisme et efficacité professionnelle). Une version française du MBI [36] a été testée au niveau psychométrique et montre la même structure en trois facteurs que la version originale. Le MBI ne mesure pas la présence ou l'absence de burnout. Les auteurs parlent davantage en termes de niveau de burnout sur un continuum. Des scores élevés aux sous-échelles d'épuisement émotionnel et de dépersonnalisation et des scores faibles à celle d'accomplissement personnel reflètent des niveaux élevés de burnout selon Maslach et Jackson [13]. D'autres auteurs utilisent un critère selon lequel le burnout serait cliniquement significatif quand les scores d'épuisement émotionnel ou de dépersonnalisation sont élevés [37]. Il n'existe pas actuellement de consensus sur la façon de considérer les scores à cette échelle.

Le OLBI mesure les deux dimensions de base du burnout (épuiement et désengagement) conceptuellement similaires à celles du MBI-GS (épuiement et cynisme). Des études ont confirmé la structure en deux facteurs (épuiement et désengagement) du OLBI dans différents groupes professionnels [38]. Contrairement au MBI-GS où la formulation des items est unidirectionnelle (les items épuiement et cynisme sont formulés négativement et les items efficacité professionnelle sont formulés positivement), les deux dimensions du OLBI sont mesurées par des items formulés négativement et positivement [35]. L'épuisement est défini comme une conséquence d'une tension physique, affective et cognitive prolongée et intense, comme le résultat d'une exposition prolongée à des conditions de travail spécifiques (ou stressors). En comparaison avec le MBI ou MBI-GS, le OLBI couvre non seulement les aspects affectifs (ex. vidé émotionnellement), mais également physiques et cognitifs de l'épuisement (ex. besoin d'un long temps de repos). L'échelle de désengagement du OLBI se réfère aux émotions concernant la tâche de travail (ex. inintéressant, pas assez de défi) aussi bien qu'à la dévalorisation et à l'exécution mécanique du travail, alors que l'échelle de cynisme du MBI-GS se restreint à mesurer principalement le manque d'intérêt que la personne a dans son travail. Le désengagement représente une réaction plus étendue en terme de rejet émotionnel, cognitif et comportemental du travail. La validité convergente du OLBI et du MBI-GS a été confirmée par Demerouti et al. [35]. Les deux dimensions de base du OLBI et du

MBI-GS, même si elles utilisent des conceptualisations un peu différentes, partagent une certaine quantité de variance commune.

Parmi ces instruments, le MBI est la mesure la plus utilisée pour identifier le burnout dans la littérature médicale [39].

6. Corrélats et prédicteurs

Plusieurs études ont tenté de mettre en évidence les variables individuelles et professionnelles susceptibles d'être des corrélats et des prédicteurs du burnout.

Concernant les variables individuelles, les corrélations sont en général plus faibles que pour les variables professionnelles. Parmi les variables sociodémographiques étudiées, l'âge est lié au burnout de façon la plus consistante. Le burnout semble plus fréquent parmi les jeunes travailleurs de moins de 30 ans - aux Etats-Unis au moins- qui ont une expérience de travail relativement courte [40, 41]. Cependant, ces résultats doivent être interprétés avec précaution. En effet, les travailleurs qui étaient en burnout ont probablement quitté leur emploi, ce qui expliquerait que ceux qui restent parmi les travailleurs plus âgés soient en 'bonne santé'. En Europe, le burnout est plus prévalent parmi les travailleurs plus âgés [42]. Il est probable que les travailleurs européens soient moins enclins à changer d'emploi pour des raisons de valeurs culturelles et de système de sécurité sociale réduisant davantage la mobilité par rapport aux USA. Parmi les caractéristiques de personnalité, il a été suggéré qu'une faible ouverture au changement, une faible estime de soi, un vécu subjectif de contrôle externe (c'est-à-dire une tendance à attribuer les événements et réussites aux autres ou à la chance) et un style de coping évitant (visant à réguler la réponse émotionnelle face au problème, en opposition à un style de coping actif visant à modifier le problème [20]) constitueraient le profil d'un individu enclin au burnout [25, 43-46]. D'autres recherches ont également montré un lien entre le burnout et la dimension de neuroticisme, qui inclut l'anxiété trait, l'hostilité, la dépression, la gêne, et la vulnérabilité [25, 43, 47]. La dimension 'épuisement émotionnel' du burnout a également été liée au comportement de type A (compétition, pression du temps, hostilité, besoin excessif de contrôle) [48].

Parmi les variables professionnelles, des études ont établi des corrélations modérées à élevées entre les exigences quantitatives (ex. surcharge de travail, fréquence des contacts, pression du temps) [49, 50] et qualitatives (ex. caractère

chronique ou aigu du problème, confrontation avec la maladie et la mort) [51] et le burnout. Dans certains cas, les demandes quantitatives corréleront davantage avec le burnout que les variables qualitatives [9, 25] alors que dans d'autres cas, certaines variables émotionnelles comme l'exigence d'être empathique expliquent davantage le burnout que des variables quantitatives [52]. De plus, l'absence de ressources au travail (ex. manque de soutien des supérieurs, faible participation à la prise de décisions) a également été mise en lien avec le burnout [50, 53].

Ces études établissent pour la plupart des associations corrélacionnelles avec le burnout et ne permettent pas d'établir de liens de causalité avec les différentes variables individuelles et professionnelles testées.

7. Modèles théoriques

Trois types de modèles ont été proposés pour expliquer l'apparition du burnout : les modèles individuels, interpersonnels et organisationnels. Une perspective physiologique commence à apparaître. Cependant, les connaissances psychophysiologiques du burnout sont encore peu développées.

Les modèles de type individuel sont pour la plupart spéculatifs car ils n'ont pas été soutenus empiriquement. Ils mettent en général l'accent sur l'importance de la divergence entre les attentes de l'individu et la réalité pour expliquer l'apparition du burnout (ex. [34, 54]). Cette inadéquation conduirait au stress et éventuellement au développement du burnout quand des stratégies de coping inadéquates sont adoptées et/ou quand les ressources individuelles ou organisationnelles appropriées manquent.

Les modèles interpersonnels soulignent l'importance des exigences émotionnelles dans les relations avec les bénéficiaires et de la dynamique des relations sociales sur le lieu de travail. Ils ont été davantage soutenus empiriquement. D'une part, Maslach et al. [18, 55, 56] ont fait l'hypothèse que le burnout résulte de relations chargées émotionnellement entre le soignant et le bénéficiaire des soins. Un processus dynamique apparaît alors dans lequel la dépersonnalisation est considérée comme une tentative dysfonctionnelle de gérer l'épuisement émotionnel. Cependant, les auteurs n'expliquent pas pourquoi ces relations chargées émotionnellement sont si stressantes. Ce modèle a été confirmé en partie par Lee et Ashforth [50]. Un autre modèle, de Schaufeli et al. [25], a tenté d'expliquer pourquoi ces relations

émotionnelles conduiraient à l'épuisement. Il stipule que la relation entre le soignant et le bénéficiaire est caractérisée par un manque de réciprocité du point de vue du soignant. C'est ce manque de réciprocité, dans la relation interpersonnelle et également dans la relation avec l'organisation qui serait au centre du syndrome de burnout [57]. Des études transversales et longitudinales ont d'ailleurs confirmé cette association entre le manque de réciprocité et le burnout pour différentes professions [25, 58-60].

Les modèles organisationnels soulignent l'importance du contexte organisationnel dans son ensemble pour comprendre le burnout. Parmi les différents modèles (le modèle Demand-Control-Support [61, 62], le modèle Effort-Reward-Imbalance [63], le modèle Job Demands-Resources [38, 64]), il semble que le modèle Job Demand-Resources (JD-R) arrive à des résultats relativement solides [65].

Ce modèle JD-R propose que les caractéristiques des environnements de travail soient classées en deux catégories principales, les exigences professionnelles et les ressources professionnelles, qui englobent respectivement différentes exigences spécifiques et différentes ressources spécifiques à chaque profession [38]. Ce modèle propose deux processus psychologiques pour expliquer le développement du burnout. D'une part, un processus énergétique d'épuisement stipule que les exigences professionnelles élevées et chroniques épuisent l'énergie de la personne à long terme. Les exigences professionnelles se réfèrent aux aspects physiques, psychologiques, sociaux et organisationnels du travail qui demandent des efforts physiques et/ou psychologiques soutenus et qui sont associées à certains coûts physiologiques et/ou psychologiques. D'autre part, un processus motivationnel stipule que le manque de ressources est incompatible avec une gestion efficace de ces exigences professionnelles élevées et a des effets délétères sur la motivation et la performance de la personne, conduisant éventuellement à un retrait mental ou un désengagement du travail (cynisme) et à un sens réduit d'efficacité professionnelle. Les ressources professionnelles se réfèrent aux aspects physiques, psychologiques, sociaux et organisationnels du travail qui (a) peuvent être fonctionnels pour atteindre les buts professionnels, (b) peuvent réduire les exigences professionnelles et les coûts physiologiques et psychologiques associés, et (c) peuvent stimuler la croissance personnelle et le développement [38].

Selon ce modèle, le risque de burnout est le plus élevé dans les environnements de travail où les exigences professionnelles sont élevées et les ressources professionnelles faibles [38]. De plus, une hypothèse modératrice stipule que des ressources professionnelles élevées peuvent compenser l'impact négatif des exigences

professionnelles sur le burnout [64]. Des études empiriques ont en effet confirmé que les exigences professionnelles sont positivement associées à la composante d'épuisement du burnout alors que les ressources professionnelles sont associées au cynisme ou désengagement (négativement) et à l'efficacité professionnelle (positivement) [66]. Il a également été démontré que les ressources professionnelles ont un effet modérateur sur l'impact des exigences professionnelles sur le burnout [67].

Le modèle JD-R a également été étendu en incluant la notion d'engagement professionnel, défini comme un état d'esprit positif relatif au travail qui se caractérise par de l'enthousiasme, du dévouement et le fait d'être absorbé dans son travail [24]. Des résultats ont confirmé que le burnout et l'engagement sont des états indépendants négativement et modérément associés [17, 24]. Plus particulièrement, l'enthousiasme et le dévouement sont les opposés positifs directs de l'épuisement et du cynisme [68]. Contrairement au burnout, l'engagement est exclusivement prédit par les ressources professionnelles disponibles [24, 64, 69].

Etant donné la nature complexe et multi-causale du processus de burnout, il n'y a pas de consensus sur un modèle synthétique pour expliquer l'apparition de ce syndrome. Ces différents modèles sont intéressants dans la mesure où ils ont de nombreuses implications au niveau de la prévention du burnout.

8. Interventions pour réduire le burnout

Peu d'études empiriques ont testé les interventions visant à réduire le burnout. Bien qu'il soit reconnu qu'une combinaison des deux types d'intervention serait plus efficace, les interventions décrites dans la littérature sont soit centrées sur la personne, soit centrées sur le travail [70]. De façon générale, elles sont plus souvent centrées sur la personne que sur le travail [9, 25]. Les interventions centrées sur le travail ont souvent d'autres cibles que le burnout, comme augmenter la productivité et l'efficacité [71].

Les interventions centrées sur la personne visant à prévenir ou réduire le burnout combinent deux principes : augmenter la connaissance des participants de leurs problèmes relatifs au travail et augmenter leurs ressources de coping par des formations à des habiletés cognitives et comportementales [70]. Elles incluent notamment l'apprentissage de la relaxation, l'entraînement aux habiletés

relationnelles, l'apprentissage de techniques cognitivo-comportementales de type restructuration cognitive par exemple [9, 25, 72, 73]. Des programmes psychothérapeutiques sont également proposés visant à réduire les symptômes de burnout et également la reprise et la réhabilitation au travail [25]. Bien que l'évaluation de ces interventions individuelles ait conduit à des résultats contradictoires, les stratégies de type cognitivo-comportementales ont montré un impact positif sur le burnout, et particulièrement sur l'épuisement émotionnel [25, 74, 75].

Les interventions centrées sur le travail peuvent viser soit à diminuer les exigences professionnelles (ex. redéfinition du travail, horaires de travail flexibles [76-78]) soit à augmenter les ressources professionnelles (ex. augmenter l'autonomie, augmenter le soutien social des supérieurs et des collègues, augmenter la participation à la prise de décisions [67, 77, 79]). Considérant les modèles théoriques du burnout, diminuer les exigences professionnelles serait plus efficace qu'une augmentation des ressources pour prévenir le burnout [67]. Augmenter les ressources professionnelles d'un autre côté, pourrait avoir un impact positif sur l'engagement professionnel. L'évaluation de l'efficacité de ces interventions a reçu peu d'attention et conduit également à des résultats contradictoires [70, 74, 75]. Des études ont cependant montré une réduction de l'épuisement émotionnel et/ou de la dépersonnalisation suite à des interventions visant essentiellement l'augmentation du soutien social [80-84].

Il apparaît que les interventions centrées sur la personne fonctionnent mieux que celles centrées sur le travail. En tout cas, la dimension centrale du burnout – l'épuisement émotionnel – semble pouvoir être diminué. Par contre, les niveaux de dépersonnalisation et d'accomplissement personnel seraient plus résistants aux changements [71]. Ce n'est pas surprenant car les techniques se focalisent en général sur la réduction de l'aspect émotionnel plutôt que sur le changement des attitudes (dépersonnalisation) ou sur l'amélioration de ressources professionnelles spécifiques (accomplissement personnel). Comparées aux interventions individuelles, les effets des interventions centrées sur le travail sont décevants. Ce serait en partie pour des raisons méthodologiques car ces interventions sont souvent participatives rendant difficile la mise en place d'un design expérimental avec un groupe contrôle, qui permettrait de tester leur efficacité [71].

Des recherches supplémentaires dans ce domaine semblent nécessaires. D'une part, il serait intéressant de tester un programme d'intervention centré à la fois sur la personne et sur le travail. D'autre part, au lieu de vouloir prévenir le burnout, il serait

pertinent de se tourner également vers des interventions visant à augmenter l'engagement professionnel.

Le burnout des médecins

1. Profession à risque

Parmi les professionnels de la santé, la profession médicale est particulièrement à risque pour le développement du burnout. En Belgique, une enquête nationale réalisée en 2001 a d'ailleurs révélé que 50% des médecins généralistes et spécialistes présentaient des symptômes de burnout [85].

Plusieurs variables relatives au travail contribuent au développement du burnout chez les médecins. Certaines sont semblables à celles rencontrées dans d'autres professions comme les horaires difficiles et la surcharge de travail [86, 87]. D'autres sont plus spécifiques et sont apparues ces dernières années. D'abord, l'augmentation des connaissances médicales et l'apparition des nouvelles technologies obligent le médecin à s'informer quotidiennement, ce qui lui demande du temps et un accès facile aux banques de données. Ces avancées technologiques soulèvent également de nouvelles questions éthiques. Par ailleurs, dans de nombreux pays règne une incertitude quant à l'avenir du système de soins. Ensuite, les patients sont de plus en plus exigeants vis-à-vis du corps médical. De plus, l'esprit de compétition dans les milieux universitaires peut être difficile à gérer [12]. Enfin, des variables davantage qualitatives comme les questions liées à la maladie, la souffrance et la mort constituent une charge supplémentaire et renvoient vers une habileté clinique centrale en médecine, à savoir l'établissement d'une communication adéquate avec le patient [86]. Pourtant, les médecins sont peu formés à la communication avec les patients [88]. Ils reconnaissent d'ailleurs que ce manque de compétences en communication peut contribuer au développement du burnout [89].

2. Le burnout des médecins spécialistes en oncologie

Parmi les disciplines médicales, l'oncologie peut être considérée comme un cas particulier. Cette spécialisation peut être passionnante et stimulante. Cependant, dans le quotidien, les médecins spécialistes en oncologie doivent également faire face à de nombreux problèmes psychosociaux qui peuvent épuiser leur passion et diminuer l'engagement dans cet idéal qui les a conduits à ce choix de spécialisation. Eventuellement, cela peut les conduire au burnout.

En plus des facteurs de stress professionnel communs à d'autres disciplines (surcharge de travail et manque d'autonomie [39]), les médecins spécialistes en oncologie sont confrontés à des facteurs de stress plus spécifiques. Dans cette discipline, les médecins sont quotidiennement en contact avec des patients ayant des maladies compliquées et potentiellement mortelles [89, 90]. L'imprédictibilité de ces maladies provoque de la détresse chez les patients mais également chez les médecins. Ceux-ci doivent gérer des situations de communication dans des contextes hautement émotionnels telles que annoncer des mauvaises nouvelles, informer les patients à propos de procédures de traitement, demander le consentement informé, informer du passage du curatif au palliatif, prendre en charge des patients anxieux et dépressifs et faire face à des réactions difficiles comme le déni [91-96]. D'un côté, ces patients 'difficiles' peuvent conduire les médecins à ne plus être empathique et à la dépersonnalisation [97]. D'un autre côté, certains patients peuvent devenir particuliers pour le médecin et conduire à une trop grande implication [98]. Ces situations sont d'autant plus stressantes que les patients cancéreux sont souvent accompagnés d'un proche dans les situations médicales difficiles, ce qui requière des habiletés de communication supplémentaires [99-101].

Travailler en oncologie peut donc être considéré comme stressant et conduire à des sentiments ambivalents chez les médecins. De plus, dans la formation de ces médecins, aucune base solide de connaissances et d'habiletés psychosociales n'est donnée pour faciliter la confrontation à ces différents facteurs de stress spécifiques. Les médecins ayant reçu peu de formation ou une formation inadéquate aux habiletés de communication pendant leurs études ont tendance à poursuivre une approche centrée sur le médecin qui décourage les patients à parler de leurs préoccupations [88] et conduit à une insatisfaction par rapport aux soins [102, 103].

Ces différentes variables relatives au travail combinées à des variables relatives à la personne comme le jeune âge et le fait d'être célibataire ont été associées à une

mauvaise santé mentale, à des niveaux de stress élevés, à une faible estime de soi, à une faible satisfaction professionnelle et au burnout chez les médecins spécialistes en oncologie [89, 93, 104-107]. Le burnout était particulièrement associé à deux types de variables : le niveau élevé de stress relatif au patient (ex. gérer la souffrance des patients) et le niveau faible de satisfaction relatif au patient (ex. satisfaction de bien gérer les patients et leurs familles) [104].

Une communication adéquate semble donc essentielle aussi bien pour le bien-être du médecin que pour le bien-être du patient. Elle diminue les risques d'épuisement émotionnel chez les médecins et est un facteur majeur de l'adhésion du patient au traitement et de la résolution des symptômes [94, 108, 109].

3. Le burnout des médecins candidats-spécialistes

Comme décrit précédemment, le jeune âge est une variable liée au développement du burnout chez les médecins. En effet, dans le cours de la carrière médicale, les médecins candidats-spécialistes montrent des taux de burnout allant jusqu'à 82% selon les études [110]. L'assistantat semble être une période particulièrement stressante.

Dans une revue récente de la littérature sur le burnout des médecins candidats-spécialistes, les prédicteurs du burnout sont décrits en deux catégories : professionnels et individuels [110]. Des résultats contradictoires sont souvent rapportés. Seuls quatre des seize facteurs de risque professionnels montrent des corrélations élevées avec le burnout : la charge de travail quantitative, une perception du travail comme stressant, l'anticipation de la dette financière à la fin de la formation (relativement spécifique au système américain) et le conflit entre travail et famille. Les onze facteurs de risque individuels décrits (ex. l'âge, le sexe) étaient seulement associés faiblement ou modérément au burnout [110].

Les médecins candidats-spécialistes doivent en effet gérer une charge de travail intense tout en ayant un contrôle limité sur leur travail [110-112]. Comme leurs aînés, ils rapportent de plus qu'ils ne sont pas suffisamment formés aux habiletés de communication, ce qui engendre du stress en consultation [113]. Ce stress de communiquer avec les patients les empêche de se sentir efficace en consultation [113]. Cette diminution du sentiment d'efficacité personnelle renvoie au concept d'efficacité personnelle introduit par Bandura se référant à l'estimation d'une personne de sa

capacité à réaliser une tâche spécifique avec succès [114]. Or, cette diminution du sentiment d'efficacité personnelle par rapport à une tâche peut avoir un impact négatif sur la performance à cette tâche [114, 115]. Le manque de formation en communication, le stress de communiquer et la diminution du sentiment d'auto-efficacité en consultation s'ajoutent aux autres variables relatives au travail et peuvent contribuer au développement du burnout parmi les médecins candidats-spécialistes.

La littérature concernant le burnout des médecins candidats-spécialistes est peu abondante. La faible qualité des études, la puissance prédictive limitée des facteurs prédicteurs inclus dans les études et les résultats contradictoires illustrent le besoin d'études plus systématiques. Les recherches devraient prendre en compte les exigences individuelles et professionnelles dans cette population [110].

4. Interventions pour réduire le burnout des médecins

Peu d'études ont testé l'impact d'interventions sur le niveau de burnout des médecins - spécialistes ou candidats-spécialistes. Les interventions testées dans la littérature sont essentiellement centrées sur la personne.

Parmi les interventions individuelles auprès des médecins, Firth-Cozens a suggéré la pertinence de les aider à gérer la pression liée à leur rôle en apprenant à diminuer l'auto-critique au moyen de la restructuration cognitive, en encourageant des stratégies de coping différentes du déni et de l'abus de substances et en améliorant les stratégies de communication pour mieux répondre aux plaintes des patients [116]. Cependant, peu d'études ont testé ces interventions parmi des médecins. D'une part, des programmes de formation aux stratégies de gestion du stress (ex. entraînement à la relaxation, apprentissage de techniques cognitivo-comportementales) ont montré des résultats limités sur le niveau de burnout des professionnels de la santé, incluant des médecins [75]. Les interventions de type cognitif semblent être légèrement plus efficaces [75]. Parmi les médecins candidats-spécialistes, deux études quasi expérimentales ont montré un impact positif d'un programme de formation aux techniques de relaxation sur les scores d'épuisement émotionnel [117, 118]. D'autre part, des programmes de formation aux stratégies de communication ont montré leur efficacité parmi des médecins au niveau de l'amélioration des stratégies de communication [1, 106, 119-125] et du sentiment d'efficacité personnelle en consultation [126]. Cependant, les résultats relatifs à

l'efficacité de ces programmes au niveau de la réduction du niveau de burnout des médecins sont contradictoires à travers les études [127-130]. A notre connaissance, il n'existe pas d'études de ce type chez les médecins candidats-spécialistes.

Parmi les interventions centrées sur le travail, des auteurs ont fait différentes suggestions pour prévenir le burnout des médecins : programme de conseils pour les médecins, groupes de soutien confidentiels, comité pour la santé des médecins, retraite 'bien-être' annuelle, programme sabbatique institutionnalisé, programmes de formation médicale continue, diminution du travail administratif [131]. A nouveau, peu d'études ont testé ce type d'interventions parmi des médecins. Une intervention centrée sur le travail parmi des services d'oncologie incluant des médecins (constituée d'une évaluation des problèmes d'équipe et d'une proposition de solutions au niveau professionnel) a montré son efficacité dans la prévention de l'augmentation de l'épuisement émotionnel dans le groupe ayant participé à l'intervention par rapport au groupe contrôle [132]. Une autre étude a également montré une réduction du burnout parmi des équipes en oncologie suite à une intervention visant essentiellement l'augmentation du soutien social au sein de l'équipe [84].

Les études testant l'efficacité d'interventions sur le burnout des médecins ayant un design adéquat sont donc rares. Il n'est pas possible à ce stade de dire quel type d'intervention pourrait avoir un effet positif. Des études supplémentaires au niveau individuel et organisationnel semblent réellement nécessaires dans ce domaine.

Conclusion

Le burnout est un état d'esprit négatif relatif au travail qui se caractérise principalement par trois dimensions : l'épuisement émotionnel, la dépersonnalisation et la perte d'accomplissement personnel. Bien que des études supplémentaires semblent nécessaires pour établir les liens de causalité entre ces trois dimensions, les recherches actuelles soutiennent l'idée que le burnout peut être conceptualisé comme un processus développemental. Au niveau de l'évaluation de ce syndrome, l'échelle de mesure la plus utilisée, notamment dans la littérature médicale, reste le Maslach Burnout Inventory. Etant donné la nature complexe et multi-causale du processus de burnout, il n'y a pas de réel consensus sur un modèle synthétique pour expliquer l'apparition de ce syndrome. Certains modèles soutenus empiriquement peuvent pourtant être intéressants dans la mesure où ils ont de nombreuses implications au niveau de la prévention du burnout. Concernant les interventions pour réduire le burnout, il apparaît que celles centrées sur la personne fonctionnent mieux que celles centrées sur le travail. Cependant, des études supplémentaires basées sur un design adéquat sont nécessaires pour tester l'efficacité de ces interventions.

Parmi les différentes professions, la profession médicale, et surtout le domaine de l'oncologie, semble être particulièrement à risque pour le développement de ce syndrome. En plus des facteurs de stress professionnels communs à d'autres professions tels que la surcharge de travail, les médecins spécialistes en oncologie sont confrontés à des facteurs de stress spécifiques liés notamment au manque de formation dans une habileté médicale importante, la communication. Une communication adéquate semble essentielle aussi bien pour le bien-être du patient que pour le bien-être du médecin. Par ailleurs, alors que le début de carrière semble être particulièrement difficile, la littérature concernant le burnout des médecins candidats-spécialistes est peu abondante. Enfin, peu d'études ont testé l'efficacité d'interventions qu'elles soient centrées sur la personne ou sur le travail sur le burnout des médecins.

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OBJECTIFS DU TRAVAIL

Tenant compte du niveau de burnout des médecins spécialistes en oncologie décrit dans la littérature et du manque d'études testant l'efficacité des programmes d'interventions dans ce domaine, le premier objectif de ce travail de thèse vise d'une part, à tester l'impact d'un programme de formation à la communication sur le niveau de burnout de médecins spécialistes en oncologie et d'autre part, à identifier, parmi des variables relatives à la personne et au travail, les prédicteurs et corrélats associés aux changements dans leur niveau de burnout. Ce premier objectif est décrit dans l'article 1 du travail.

Ensuite, l'efficacité limitée au niveau du burnout des programmes d'intervention centrés sur la communication et l'importance d'agir tôt dans la carrière du médecin nous a conduits à formuler le second objectif de ce travail de thèse. Ce second objectif se divise en trois parties. D'abord, il s'agit de décrire les fondements théoriques, principes et techniques d'un programme d'intervention combinant une formation à la communication et à la gestion du stress. Ensuite, il s'agit de tester l'impact de ce programme d'intervention sur le stress de communiquer en consultation avec un patient cancéreux, le sentiment d'efficacité personnelle concernant la communication et la gestion du stress en consultation avec un patient cancéreux et le niveau de burnout de médecins candidats-spécialistes. Enfin, il s'agit d'identifier, parmi des variables relatives à la personne et au travail, les prédicteurs et corrélats associés aux changements dans leur niveau de burnout. Ces trois parties correspondent aux trois derniers articles de ce travail de thèse.

Sous le format d'une compilation de quatre articles scientifiques, ce travail de thèse vise à contribuer à l'étude de l'impact d'interventions psychologiques préventives sur le niveau de burnout des médecins et à l'identification des variables contribuant aux changements dans le niveau de burnout.

ARTICLE 1

Impact of communication skills training programs on physicians' level of burnout: Results derived from a randomized controlled study

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Patient Education and Counseling, submitted

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ABSTRACT

Objective

Study's objectives are (1) to compare in a randomized controlled design the impact of a basic communication skills training program (BT) and the same program consolidated by consolidation workshops (CW) on physicians' level of burnout, (2) to identify potential predictors and correlates of changes in physicians' burnout.

Methods

Physicians, after attending the BT, were randomly assigned to CW or to a waiting list. Physicians' burnout level was assessed with the Maslach Burnout Inventory at baseline and after CW for the CW group, and 5 months after the end of BT for the waiting-list group. Physicians' communication skills acquisition was assessed in a simulated patient interview.

Results

No statistically significant time and group-by-time effects on physicians' level of burnout were observed. The regression analyses showed that the amount of some learned communication skills (i.e. appropriate information giving function) were correlates of physicians personal accomplishment decrease.

Conclusion

The content of the communication skills training programs tested in this study did not reduce physicians' level of burnout. Moreover, learned communication skills are associated with a decrease in personal accomplishment for some participants.

Practice Implications

The content of such programs must thus be redefined.

Key words

Communication, training, cancer, physicians, burnout.

1. Introduction

Physicians dealing with cancer patients experience a high level of stress which can lead to burnout [1]. Burnout is a specifically work-related syndrome defined by three aspects: emotional exhaustion (feeling emotionally spent), lack of personal accomplishment (experiencing a low sense of efficacy at work) and depersonalization (displaying a detached attitude toward patients) [2]. Between one-quarter and one-third of cancer physicians report high emotional exhaustion, low personal accomplishment and high depersonalization [3, 4]. One study which examined changes in the mental health of UK hospital consultants showed that the proportion of consultants with psychiatric morbidity rose in the last ten years [5, 6].

The risk factors for cancer physicians' burnout have not been clearly identified. Some sociodemographic factors (younger age [1, 5], being single [1, 5]) and socioprofessional factors (frequency and quantity of interactions with patients [1, 5], feeling poorly resourced [5]) have been reported. Moreover, cancer physicians have to face highly emotional contexts and to deal with complex communication issues such as breaking bad news, informing patients about highly complex treatment procedures, and asking for informed consent [7-10]. The stress experienced in these contexts coupled with the feeling of being inadequately trained in communication skills may increase the risk of burnout among cancer physicians [3, 5, 11]. In theory, the use of effective communication skills when facing these highly emotional clinical contexts should reduce burnout.

A body of evidence shows that physicians' communication skills can be improved following well-designed, skill-focused, practice-oriented, and learner-centered communication skills training programs [3, 12-17]. Although there is evidence that some interventions may reduce burnout in healthcare workers in general [18-20], results are inconsistent across studies [21, 22]. There is therefore still a need to investigate the impact of communication skills training programs on cancer physicians' level of burnout or on cancer physicians already suffering from burnout.

The primary aim of this study is to assess in a randomized design the impact on cancer physicians' level of burnout of two communication skills training programs: a 2.5-day basic training program (BT) and the same training program consolidated by six 3-hour consolidation workshops (CW) (See figure 1 showing the impact of communication skills training programs on physician's level of burnout). This study is thus not targeting selected participants suffering from burnout. These training

programs have shown their effectiveness in terms of improvements in physicians' communication skills after BT (e.g. asking more open and open directive questions, eliciting and clarifying psychological information more often) and the transfer of acquired skills to clinical practice after CW (e.g. more acknowledgments, empathic statements, educated guesses) [13]. The secondary aim of this study is to identify potential predictors and correlates (among contextual variables and communication skills) of changes in physicians' burnout during the study period (7 months).

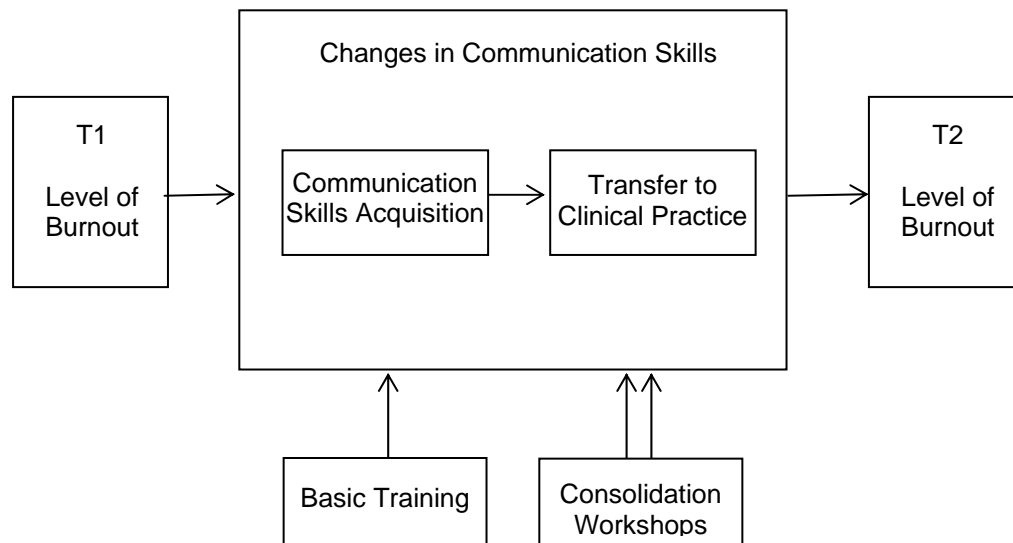


Figure 1. Impact of communication skills training programs on physicians' level of burnout.

2. Methods

Recruitment procedure

To be included in the study, physicians had to be specialists and to be working with cancer patients (part time or full time). All Belgian specialists working in cancer care were invited by mail to take part in the training program (n=3706) and all institutions devoted to cancer care were asked to deliver an internal mail (n=2741). Due to the low response rate (only 90 potentially interested subjects responded spontaneously to the two types of mailing), physicians were actively contacted either by phone, met in individual information sessions or through group information

sessions. Those contacts were aimed at explaining the rationale for the study, the training program and its assessment procedure. Recruitment procedure, study design, training and assessment procedures are shown in Figure 2.

Study design

The efficacy of the CW was assessed in a study allocating physicians randomly after a BT, to CW or to a waiting list, using sealed opaque envelopes containing group allocation that the physicians were invited to pick out (Figure 2). The study was approved by the local ethics committee. The BT was spread over a 1-month period. The CW started 2 months later for participants who were immediately assigned to the workshops. The bimonthly CW were spread over a 3-month period. Subjects assigned to the waiting list were invited to take part in the CW 6 months after the end of the BT. Detailed descriptions of the training programmes have been published previously [13, 23].

Assessment of communication skills

Assessment of communication skills were scheduled before BT (T1), just after this program, and after CW for the CW group and approximately 5 months after the end of BT for the BT-without-CW group (T2). The assessment procedure included a Standardized Breaking Bad News Simulated Interview. It has the benefit of being a standardized highly emotional context allowing to assess physicians' communication skills [24]. The Standardized Breaking Bad News Simulated Interview was recorded on audio tapes. The same actress was used for all of the assessments, and the same case was used for pre- and post-intervention assessments. The actress was trained to maintain the same behaviour and high emotional depth carefully over the entire study [24]. Before the Standardized Breaking Bad News Simulated Interview, each physician had enough time to learn the case description. The physician was then introduced to the simulator in the recording room and was told that, after 20 minutes, the interview would be put to an end. It should be recalled that this Standardized Breaking Bad News Simulated Interview was part of the procedure of a study assessing the efficacy of CW designed to optimize physicians communication skills in cancer care: the results of this study were published elsewhere [13].

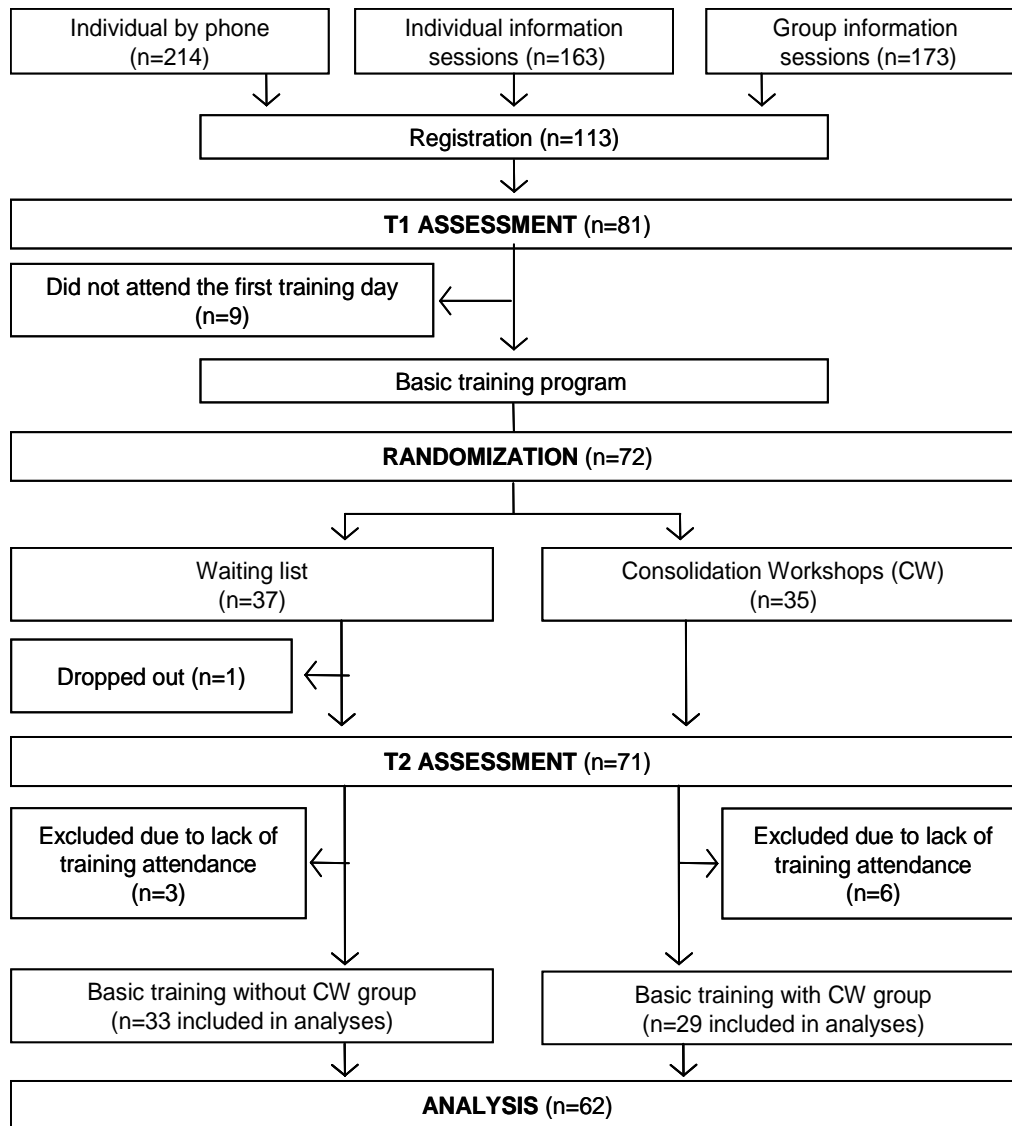


Figure 2. Recruitment, study design, training and assessment procedures.

Interview rating system

All audiotapes were transcribed. Transcripts were assessed for their quality and then rated by trained psychologists. Rating was based on the French translation and adaptation of the Cancer Research Campaign Workshop Evaluation Manual (CRCWEM) [25]. The CRCWEM was used to assess the form and function of each utterance. Eliciting and clarifying psychological information are considered as assessment skills, giving appropriate information, introducing and closing as information skills and educated guesses, empathy, alerting to reality and confronting as supportive skills. The construction of these categories has been tested in previous studies [12, 13, 18, 23].

Assessment of burnout levels

After the Standardized Breaking Bad News Simulated Interview, each physician completed the validated French version of the Maslach Burnout Inventory (MBI) [26, 27]. The MBI is a 7-point 22-item self-report instrument that assesses three aspects of the burnout syndrome on three separate subscales: emotional exhaustion, depersonalization and personal accomplishment. The burnout scores may be conceptualized either as continuous variables or as something that is low, average or high [27]. As this study was not specifically directed towards burned-out physicians, the continuous scores were used.

Assessment of contextual variables

After the Standardized Breaking Bad News Simulated Interview, each physician completed the French version of the Job Stress Survey (JSS) [28]. The JSS is a 30-item self-report instrument that assesses the perceived intensity and frequency of occurrence of several working conditions. They also completed a socioprofessional questionnaire (physician's age, gender, marital status, medical specialty, number of years of practice in medicine and in oncology, number of cancer patients seen in the week before the assessment procedure, their type of medical practice and whether or not they had had some previous communication skills training in the last year).

Statistical analyses

Statistical analyses consisted of a comparative analysis of both groups at baseline using *t* tests and χ^2 tests. Physicians' characteristics at baseline and after intervention

were compared using repeated measures analysis of variance (MANOVAs) and χ^2 tests as appropriate. Time and group-by-time changes in physicians' level of burnout were then processed using repeated measures analysis of variance (MANOVAs). All tests were two-tailed and the alpha was set at 0.05. Changes in physicians' level of burnout, communication skills and some contextual variables were computed through the difference between physicians' scores at T2 and physicians' scores at T1 (baseline).

Backward Stepwise Multiple Regression Analysis was computed to examine predictors and correlates of changes in physicians' burnout. Three models have been tested respectively for changes in personal accomplishment, emotional exhaustion and depersonalization. A preliminary correlational analysis was used to identify predictors and correlates among communication skills (including assessment, informative and supportive skills) and contextual variables (including physicians' age, gender, marital status, specialty, type of practice, years of medical practice, years of medical practice in oncology, quantity of cancer patients treated in the last week, group allocation, assessment time; Job Stress Survey scores). Considering that communication skills were all linked together and that certain skills were statistically significant ($p < .10$), all the communication skills were retained in the regression models. Contextual variables were entered in the regression analyses if they satisfied the inclusion criteria (ie, $p < .10$).

3. Results

Physicians' socioprofessional data

As shown in Figure 2, 550 physicians were contacted actively, 113 physicians registered to the training program and 72 attended the first training day. Barriers to participation included mainly personal and institutional reasons, time limitations, training duration and time consuming assessment procedures. Comparison of included and excluded physicians showed no statistically significant differences for age, gender and years of practice. Physicians' socioprofessional data are shown in Table 1. All physicians have a hospital practice (Table 1). No statistically significant differences were found at baseline between physicians who participated to the CW and physicians assigned to the waiting list.

Impact of the training on level of burnout

As shown in Table 2, the results of the MANOVAs showed no significant time and group-by-time effects on the three subscales of physicians' level of burnout between T1 and T2. It should be noted that the majority of physicians have low or average levels of burnout.

Table 1. Physicians' Socioprofessional Data (n = 62)

	Basic Training Without CW (n = 33)		Basic Training With CW (n = 29)	
	n	%	n	%
Age				
Mean	44		41	
SD	8		7	
Gender				
Male	19	58	15	52
Female	14	42	14	48
Marital status				
Single	5	15	3	10
Married or living with partner	11	33	10	35
Family	17	52	16	55
Specialty				
Oncology and radiotherapy	13	39	10	34
Hematology, gynecology, and other	20	61	19	66
Type of practice				
Inpatients	22	67	20	69
Outpatients	11	33	9	31
Type of unit*				
Medicine	11	-	16	-
Surgery	9	-	3	-
Palliative	3	-	3	-
Day hospital	19	-	14	-
Other	10	-	6	-
Medical practice (in years)				
Mean	18		17	
SD	7		7	
Medical practice in oncology (in years)				
Mean	15		14	
SD	8		7	
Nber of cancer patients treated in the last week				
Mean	25		28	
SD	19		24	
Previous training	0	0	0	0

Abbreviations: CW, consolidation workshops; SD, standard deviation.

* % are unapplicable as physicians could work in more than one unit.

Table 2. Physicians' level of Burnout (Maslach Burnout Inventory): Time and Group-by-Time Effects of the Training Programs

	Basic Training Without CW (n = 29)				Basic Training With CW (n = 33)				MANOVA			
	At Baseline		5 Months After Basic Training		At Baseline		After CW		Time		Group by Time	
	Mean (SD)	n (%)	Mean (SD)	n (%)	Mean (SD)	n (%)	Mean (SD)	n (%)	F _{1,60}	p	F _{1,60}	p
Maslach Burnout Inventory*												
Emotional exhaustion	21 (7)		22 (8)		18 (8)		18 (10)		.45	.504	.54	.464
Low < 19		12(41)		12 (41)		18 (55)		19 (58)				
Average 19-26		12 (41)		9 (31)		9(27)		7 (21)				
High > 27		5 (17)		8 (28)		6 (18)		7 (21)				
Personal accomplishment	39 (5)		39 (3)		39 (6)		39 (4)		.72	.400	.00	.992
Low < 34		1 (3)		0		4 (12)		3 (9)				
Average 34-39		18 (62)		17 (59)		9 (27)		11 (33)				
High > 39		10 (35)		12 (41)		20 (61)		19 (58)				
Depersonalization	7 (4)		8 (5)		6 (5)		7 (6)		.53	.469	.26	.611
Low < 6		13 (45)		12 (41)		20 (61)		19 (58)				
Average 6-9		7 (24)		5 (17)		5 (15)		7 (21)				
High > 9		9 (31)		12 (41)		8 (24)		7 (21)				

Abbreviations: CW, consolidation workshops; MANOVA, repeated measures of variance; SD, standard deviation.

*A high degree of burnout is indicated by high scores on the emotional exhaustion and depersonalization subscales and low scores on the personal accomplishment subscale; the total score for each subscale is categorised "low", "average" or "high" according to predetermined cut-off scores based on normative data from a sample of American health professionals²⁷.

Predictors and correlates of changes in physicians' burnout

Changes in emotional exhaustion had a mean of .58 (SD=7.3), changes in personal accomplishment had a mean of .42 (SD=3.9), and changes in depersonalization had a mean of .39 (SD=4.4). Job stress frequency had a mean of 141.5 (SD=37.7) at baseline and of 145 (SD=39) seven months later. The descriptive characteristics of the other contextual variables and of communication skills assessed in this study are described elsewhere [13].

The preliminary correlational analysis showed that concerning contextual variables and communication skills at baseline, changes in physicians' personal accomplishment were correlated with the baseline level of clinical practice ($r=.31$; $p=.014$), personal accomplishment ($r=-.68$; $p<.001$) and the use of false reassurances ($r=-.31$; $p=.015$). Changes in physicians' depersonalization were only correlated with the baseline level of depersonalization ($r=-.26$; $p=.044$).

Concerning changes in contextual variables and communication skills, changes in physicians' emotional exhaustion were correlated significantly with changes in clinical practice assessed through the number of cancer patients treated in the last week ($r=.36$; $p<.001$) and in the use of supportive functions ($r=.26$; $p=.045$). Changes in physicians' personal accomplishment were correlated with changes in the use of introducing/closing ($r=-.29$; $p=.022$) and in false reassurances ($r=.33$; $p=.008$). The correlations of changes in physicians' burnout with communication skills at baseline and with changes in these communication skills are shown in Table 3.

As shown in Table 4, when all the independent variables were combined, 19% of the variance in changes in emotional exhaustion, 61% of the variance in changes in personal accomplishment and 9% of the variance in changes in depersonalization were explained by the Backward Stepwise Multiple Regression Analysis.

Concerning predictors, changes in physicians' personal accomplishment were significantly predicted by the baseline level of the personal accomplishment ($b=-.49$; $p<.001$) the number of cancer patients treated in the last week ($b=.04$; $p=.013$) and the use of appropriate information giving ($b=-.22$; $p=.016$).

Concerning correlates, changes in physicians' emotional exhaustion were associated significantly with changes in the number of cancer patients treated in the last week ($b=.14$; $p=.026$). Changes in physicians' personal accomplishment were associated significantly with changes in the use of introducing/closing ($b=-.38$; $p=.036$) and in appropriate information giving ($b=-.17$; $p=.023$).

Table 3. Spearmans' Correlations of Changes in Physicians' Burnout (Maslach Burnout Inventory) with Communication Skills at Baseline and with Changes in Communication Skills.

	Changes in Physicians' Burnout ° (n = 62)		
	Emotional Exhaustion	Personal Accomplishment	Depersonalization
Communication Skills			
Baseline			
Introducing, closing	-.08	.11	-.01
Eliciting and clarifying general information	-.06	-.10	-.12
Eliciting and clarifying psychologic information	-.07	-.17	-.02
Appropriate advice/information giving	.12	-.04	-.15
Inappropriate advice/information giving	.15	.13	.06
Educated guesses, empathy, alerting to reality and confronting	-.12	.05	-.04
Premature (false) reassurance	.17	-.31*	.13
Changes°			
Introducing, closing	-.07	-.29*	-.10
Eliciting and clarifying general information	-.15	.01	.15
Eliciting and clarifying psychologic information	.08	.09	-.02
Appropriate advice/information giving	-.06	-.09	.21
Inappropriate advice/information giving	-.10	.05	-.01
Educated guesses, empathy, alerting to reality and confronting	.26*	-.12	.06
Premature (false) reassurance	-.19	.33**	-.14

* p ≤ .05; ** p ≤ .01

° These values were computed through a difference between physicians' scores after the consolidation-workshops for the consolidation-workshops group and about 5 months after basic training for the basic-training-without-consolidation-workshops group and physicians' scores before basic training.

Table 4. Predictors and Correlates of Changes in Physicians' Burnout (Backward Stepwise Multiple Regression Analysis)

	Changes in Physicians' Burnout* (n = 62)								
	Emotional Exhaustion			Personal Accomplishment			Depersonalization		
	b	β	p	b	β	p	b	β	p
Contextual variables									
Baseline									
Emotional exhaustion	-.21	-.22	.071	-	-	-	-	-	-
Personal growth	-	-	-	-.49	-.65	<.001	-	-	-
Number of cancer patients treated last week	-	-	-	.04	.22	.013	-	-	-
Changes*									
Number of cancer patients treated last week	.14	.28	.026	-	-	-	-	-	-
Job stress frequency	-	-	.210	-	-	-	-	-	-
Communication skills									
Baseline									
Introducing, closing	-	-	.952	-	-	.207	-	-	.414
Eliciting and clarifying general information	-	-	.591	-	-	.201	-	-	.174
Eliciting and clarifying psychologic information	-	-	.232	-	-	.590	-	-	.571
Appropriate advice/information giving	-	-	.379	-.22	-.29	.016	-.17	-.20	.106
Inappropriate advice/information giving	-	-	.912	-	-	.496	-	-	.714
Educated guesses, empathy, alerting to reality and confronting	-	-	.694	-	-	.759	-	-	.396
Premature (False) reassurance	-	-	.849	-	-	.716	-	-	.930
Changes*									
Introducing, closing	-	-	.411	-.38	-.18	.036	-	-	.170
Eliciting and clarifying general information	-	-	.378	-	-	.200	-	-	.126
Eliciting and clarifying psychologic information	-	-	.403	-	-	.451	-	-	.618
Appropriate advice/information giving	-	-	.903	-.17	-.28	.023	-	-	.979
Inappropriate advice/information giving	-	-	.299	-	-	.293	-	-	.187
Educated guesses, empathy, alerting to reality and confronting	-	-	.331	-	-	.880	-	-	.918
Premature (False) reassurance	-.57	-.20	.093	-	-	.507	-.39	-.24	.061
Constant	3.8		.104	20		<.001	1.3		.165
Multiple R (% of variance explained – R²)	.44 (.19)			.78 (.61)			.31 (.09)		
F (p)	4.52 (.007)			17.29 (<.001)			3.02 (.057)		

*These values were computed through a difference between physicians' scores after the consolidation-workshops for the consolidation-workshops group and about 5 months after basic training for the basic-training-without-consolidation-workshops group and physicians' scores before basic training.

4. Discussion

The primary aim of this study was to assess in a randomized design the impact, on cancer physicians' level of burnout, of a basic training (BT) program and the same training program consolidated by consolidation workshops (CW). It should be recalled that the training considered in this study was tested for its efficacy [13]. Contrary to what was expected, no statistically significant time and group-by-time effects on physicians' level of burnout were observed. This lack of effect could be due to the fact that few physicians experienced high levels of burnout. Burned-out physicians are likely the ones for whom such training might be the more effective. This study is targeting an intervention at a group for whom communication skills training is probably not maximally beneficial. This lack of effect could also be due to the fact that increasing the use of effective communication skills does not reduce physicians' level of burnout. Moreover, the positive impact of the use of learned communication skills may be better observed after several months.

The secondary aim of this study was to identify potential predictors and correlates of changes in cancer physicians' burnout during the study period (7 months). Three models have been tested respectively for changes in personal accomplishment, emotional exhaustion and depersonalization.

Concerning changes in personal accomplishment, it should be recalled that the independent variables tested in this study explained 61% of their variance. The personal accomplishment dimension is thus probably an important variable to consider for the sample of cancer physicians tested in this study. Low baseline level of personal accomplishment was the most important predictor of positive changes in personal accomplishment. It is also interesting to note that cancer physicians who had an important clinical practice in oncology at baseline, assessed in this study by the number of cancer patients treated in the last week, reported a more important development of their personal accomplishment. It could be hypothesized that these physicians were strongly motivated to learn skills which could be used in their everyday practice and that their personal accomplishment improved consequently. Moreover, those who rarely used facilitative communication skills (i.e. appropriate information giving) during the Standardized Breaking Bad News Simulated Interview before training were those who reported a more important development of their personal accomplishment. They are those who benefited the most of the training in term of personal accomplishment.

Most interestingly, the results of this study also showed that the amount of some learned facilitative communication skills (introducing/closing function and appropriate information giving function) are correlates of a decrease in physicians' personal accomplishment. First, it may be hypothesized that the overuse of these learned facilitative communication skills led to an increase of the emotional level of clinical interviews which may be difficult to manage for some physicians and may have a detrimental effect on their personal accomplishment. Second, it may be hypothesized that training has weakened some of physicians' beliefs, built by numerous years of clinical practice, about the way they should communicate. These physicians may not have been used to focus on the emotional dimension of their clinical practice. They have probably learned to clarify patients' concerns but may need further training to support patients and to pursue their professional agenda in the context of an important workload. Third, it may also be hypothesized that the training program has made physicians aware of the usefulness of key communication skills but is not effective enough to allow them to handle those skills efficiently. Consequently, the association between physicians use of learned skills with a decrease in personal accomplishment could be due to a sense of non-achievement as regards their efficient use of the skills taught and to a lack of resources to get the job done (e.g. lack of necessary tools, insufficient time) [29].

Concerning changes in emotional exhaustion, it may be recalled that the independent variables considered in this study explained only 19% of their variance. The results also showed that those who had to cope with an increase of clinical practice (number of cancer patients treated in the last week) were those who reported a significant increase of their emotional exhaustion. This result is comparable to some other results reported in the literature showing a link between clinical workload and the development of burnout [1, 5].

Finally, concerning changes in depersonalization, it should be recalled that the independent variables considered in this study explain only 9% of their variance. The results also showed that none of the variables tested in this study was a predictor or a correlate of depersonalization. This could be linked with the low or moderate level of physicians' depersonalization in our study. This could also be due to the fact that physicians were highly motivated to participate to this study and that depersonalized physicians (presenting a detached attitude toward patients) did not participate in this study.

This study has some limitations related to the content of the training (use of role-play with direct feedback focusing mainly on the acquisition of communication skills

oriented towards patient benefit) and to the study assessment method (use of simulated interviews, voluntary participation – and thus highly motivated physicians –, small number of participants).

5. Conclusion

To conclude, there are not yet well-designed psychological interventions recognized to reduce cancer physicians' level of burnout. The association of different types of person-directed interventions could lead to better results (e.g. communication skills training, stress management interventions, assertiveness training ...) [30].

6. Practice Implications

Interventions may have to be adapted to subcategories of physicians (e.g. junior vs senior; burned-out vs non-burned-out). The question of starting some of these interventions early in the medical curriculum – compulsory or not – should be considered. Moreover, such interventions may be partly or totally organized at the workplace in order to increase participation rate and colleague support when implementing the use of the learned skills. These person-directed interventions should be associated with work-directed interventions aimed at decreasing workload or changing work organization. Finally, future similar studies should consider as outcome measure not only the MBI but other person-related (e.g. subjective and objective stress) and work-related measures (e.g. quality of work life).

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ARTICLE 2

Teaching communication and stress management skills to junior physicians dealing with cancer patients: a Belgian Interuniversity Curriculum

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ABSTRACT

Background

Ineffective physicians communication skills have detrimental consequences for patients and their relatives, such as insufficient detection of psychological disturbances, dissatisfaction with care, poor compliance and increased risks of litigation for malpractice. These ineffective communication skills also contribute to everyday stress, lack of job satisfaction, and burnout among physicians. Literature shows that communication skills training programs may significantly improve physicians' key communication skills, contributing to improvements in patients' satisfaction with care and physicians' professional satisfaction. This paper describes a Belgian Interuniversity Curriculum (BIC) theoretical roots, principles and techniques developed for junior physicians specializing in various disciplines dealing with cancer patients.

Curriculum description

The 40-hour training focuses on two domains: stress management skills and communication skills with cancer patients and their relatives. The teaching method is learner-centred including a cognitive, a behavioural, and an affective approach. The cognitive approach aims to improve physicians' knowledge and skills on the two domains cited here above. The behavioural approach offers learners the opportunity to practice these appropriate skills through practical exercises and role-plays. The affective approach allows participants to express the attitudes and feelings that communicating about difficult issues evoke. Such an intensive course seems to be necessary to facilitate the transfer of learned skills in clinical practice.

Conclusions

The BIC is the first attempt to bring together a stress management training course and a communication training course that could lead not only to communication skills improvements but also to burnout prevention.

Keywords

Cancer, communication skills, stress management, training, junior physicians.

1. Introduction

Communication is a core clinical skill in medicine. In the course of a career spanning 40 years, a hospital doctor is likely to do between 150,000 to 200,000 interviews with patients and their relatives [1]. Communication in cancer care is particularly challenging. Physicians in their everyday practice deal with breaking bad news, informing patients about highly complex treatment procedures, asking for informed consent and terminal care. To promote patient recall of information, decision-making and satisfaction with care, health care professionals need to tailor information to every patient's needs. To do so, they have to take into account contextual, cognitive and emotional barriers which jeopardize patient information recall, effective decision making and satisfaction with care [2].

However, the majority of physicians have received few adequate formal training in communication skills during their curriculum [1, 3]. Traditionally, complex clinical skills have been acquired either by observing seniors or through clinical practice. Unfortunately, the way seniors communicate and especially deliver bad news may vary greatly, leading to even more confusion concerning the best approach [4]. Several studies have shown that few physicians are able to develop these complex skills after their medical training or after many years of clinical practice [5-8]. Moreover, junior physicians identify some barriers, such as lack of time that prevent them from being effective in communicating with patients and their relatives [4]. Consequently, physicians often pursue a 'doctor-centred' approach to information gathering that discourages patients from talking about their concerns [3]. This ineffective communication leads to an insufficient detection of patient psychological disturbances [9, 10], dissatisfaction with care [11, 12], poor compliance [12, 13], and increased risks of litigation for malpractice [12, 14-17].

Insufficient training in communication skills also contributes to physicians' everyday stress in interviews, lack of job satisfaction, and burnout [1, 18]. The stress experienced in dealing with cancer patients' and their relatives' reactions to bad news [4, 19], coupled with lack of training may increase the risk of burnout. Stress outcomes may be somatic, behavioural, or emotional/cognitive. For example, acute stressors in the laboratory have been found to produce psychological and physiological changes such as increases in sympathetic nervous system activity (blood pressure and heart rate) and in cortisol secretions [20]. Therefore, it has been suggested that communication and stress management skills training programs could help improve

communication skills, reduce stress outcomes and prevent burnout among physicians. Moreover, physicians are beginning to recognize the value of engaging in a patient-centred approach to treatment and care [21] and of improving their communication and management skills [4, 21, 22].

During the last decades, research efforts have focused on training techniques to be used and communication skills to be taught [23]. The usefulness of learner-centred, skills-focused and practice-oriented communication skills training programs organized in small groups and lasting at least 20 hours has been confirmed [2]. These programs have shown to be useful in terms of physicians' acquisition of new skills in interviews (such as using open directive questions, clarification of psychological aspects and empathy) leading to more disclosure of psychosocial concerns by patients, improving recognition of these patients' psychosocial problems and changing physicians' attitudes and beliefs [1, 11, 24-28]. An empathetic attitude with the patient has also been shown to increase personal and professional satisfaction in physicians [11, 15].

Studies have indicated that patients with cancer are often accompanied by a relative in difficult medical situations [29-31], particularly at specific time points during the course of the disease: for initial visits, immediately after disease recurrence and in the terminal phase of the disease [32]. Moreover, physicians from various specialties are dealing with cancer patients and their relatives. Little is known regarding physicians' communication skills in these contexts [33]. Nevertheless physicians should be aware that communicating in three-person interviews (with a patient and a relative) requires skills that are difficult to use, contributing to a probably more stressful interaction than in two-person interviews. This is particularly stressful and difficult for physicians. Given that, a training focusing more systematically on the practice of skills in three-person interviews is needed [34]. Substantial improvements in the management of these difficulties should potentially be transferred to other medical situations.

Concerning the impact of communication skills training programs on physicians' level of stress and burnout, results are inconsistent [2]. If stress and burnout among physicians have to be prevented, increased resources will have to be required to develop training not only in communication skills but also in stress management skills. To our knowledge, no training program has been designed yet integrating both communication and stress management skills.

Therefore, a specific training bringing together a stress management skills and a communication skills training course has been designed for junior physicians specializing in various disciplines: a Belgian Interuniversity Curriculum (BIC). This paper describes BIC theoretical roots, principles and techniques. The 40-hour training focuses on two domains: stress management skills and communication skills, with a specific part focusing on skills needed to handle three-person interviews (with a patient and a relative). The content of this program is included in a detailed unpublished manual available on request from the authors.

2. Objectives and teaching method

The Belgian Interuniversity Curriculum (BIC) is a training program developed for junior physicians, that means to improve their stress management and communication skills in interviews with cancer patients and their relatives. The 40-hour training course is divided into two parts: a 10-hour stress management skills training course and a 30-hour communication skills training course. The content of the program is summarized in table 1: four sessions on stress management skills (four 2.5-hour sessions), ten sessions on communication skills (two 1-hour, seven 3-hour and one 4-hour sessions) and the last 3-hour session promoting integration and use of learned skills.

The aim of the stress management skills training course is to promote a better management of stressful situations and difficult interviews with cancer patients and their relatives by choosing the more adapted coping strategy³. The communication skills training course aims at improving knowledge related to psychosocial consequences of cancer and effective communication skills, and at developing facilitative communication behaviours with patients and their relatives. The whole program is designed to maintain the newly acquired skills and to promote the transfer of these skills to clinical practice. Finally, the BIC aims to increase physicians work-related quality of life and to enhance patients' satisfaction with care.

To be effective, communication and stress management skills training programs have to be composed of learner-centred methods [35, 36] including a cognitive, a behavioural and an affective approach [10, 37-41]. The cognitive approach aims to

³ Coping is the changing thoughts and behaviors that people use to manage distress and the problem underlying the distress in the context of a specific stressful encounter or situation.

improve physicians' knowledge about effective communication skills (e.g. using open directive questions, clarification of psychological aspects and empathy) [42] and stress management skills (e.g. self-monitoring of stress intensity, relaxation techniques, cognitive coping skills, and self-management skills such as time management) [40, 41, 43-47]. However, understanding what the appropriate skills are, is not sufficient. The behavioural approach aims to practice these appropriate skills through exercises and role-plays [3, 48]. This allows to improve their mastery and to test their consequences. These methods are more likely to result in changes in attitudes and behaviours [1, 3, 25, 27, 48, 49]. Finally, the affective approach allows participants to express attitudes, feelings, and perceived stress related with communication with cancer patients and their relatives [36].

The number of participants has to be small enough to allow each learner the frequent opportunity for practice, participation and individualized coaching [3]. Learners have to take on an active role, that is, to learn by doing rather than by listening. Limiting the size of the group also creates the sense of personal safety required for participants to disclose relevant attitudes and feelings [48]. Such a learner-centred approach requires one facilitator for every four to eight learners [3]. To simplify the transmission of difficult material, teaching aids such as slides and handouts are important as they help the facilitator to follow the structure of the course more easily.

Table 1. Summary of training program's content

Sessions	Courses	Techniques	Content	Duration
Day session 1	Communication with a cancer patient	Theory	Physician-patient communication in cancer care	1 h
	Stress management	Theory + exercises	Job stressors and stress outcomes detection	2,5 h
Evening session 1	Communication with a cancer patient	Role-plays	Breaking bad news (a breast cancer diagnosis)	4 h
	Stress management	Theory + exercises	Relaxation techniques	2,5 h
Evening session 2	Communication with a cancer patient	Role-plays	Breaking bad news (melanoma metastasis)	3 h
Evening session 3	Stress management	Theory + exercises	Cognitive restructuring	2,5 h
Evening session 4	Communication with a cancer patient	Role-plays	Discussing transition from cure to palliation	3 h
Evening session 5	Stress management	Theory + exercises	Time management	2,5 h
Evening session 6	Communication with a cancer patient	Role-plays	Clinical problems brought up by the participants	3 h
Day session 2	Communication with a cancer patient	Role-plays	Clinical problems brought up by the participants	3 h
	Communication with a cancer patient and a relative	Theory	Communication with a patient and a relative	1 h
	Communication with a cancer patient and a relative	Role-plays	Including the relative in the interview	3 h
Evening session 7	Communication with a cancer patient and a relative	Role-plays	Clinical problems brought up by the participants	3 h
Evening session 8	Communication with a cancer patient and a relative	Role-plays	Clinical problems brought up by the participants	3 h
Evening session 9	Integration and use of learned skills	Role-plays	Clinical problems brought up by the participants	3 h

3. Stress management training course: techniques and content

Curriculum

The stress management skills training course consists of four 2.5-hour sessions. The first one is part of the first day-session and the three others take place in evening sessions. The sessions focus on four topics: detection of job stressors and stress outcomes, relaxation techniques, cognitive restructuring and time management. The stress management training course has been designed to provide learners with a series of techniques that may help them prevent or minimize levels of work-related stress.

Specific techniques

A series of techniques are provided to physicians: use of daily diaries, theoretical information, relaxation, cognitive restructuring, time management techniques and diverse written material. Describing stress by gathering information and making it more 'concrete' is the first step of the program. Junior physicians can do this by filling out daily diaries. It allows physicians to carry out behavioural analyses that can conduct to a personally relevant intervention. These techniques also help physicians to distance themselves from the perceived stress, and may even help them make more sense out of it. Then, theoretical information focusing on detection of work stressors and stress outcomes are given. Relaxation, cognitive restructuring and time management techniques are also taught to provide physicians with skills in order to cope more effectively with the work stressors. Diverse relevant written material are used: comprehension and information retrieval are likely to be boosted if physicians hear information from the facilitator that they themselves have already read and understood, and if they are given the opportunity to read the same information over again following the session [50].

Content

The first session aims to detect participants' own job stressors and stress outcomes, and ways of coping with stress. Stress outcomes may be somatic (e.g. muscular tension), cognitive (e.g. irrational thoughts) and behavioural outcomes (e.g. spending too much time on low priority activities). In the following sessions, these stress outcomes are tackled by learning or reinforcing different coping resources [43].

In the second session, physicians learn relaxation techniques that help stop the somatic response. The relaxation response against stress brings on bodily changes such as a decrease in heart rate, lower metabolism, decrease in the rate of breathing, which will all hopefully bring the body back to a healthier balance [50-52]. The trainer proposes a progressive muscular relaxation technique first described by Jacobson [53], widely practiced and studied with consistently positive results [51].

In the third session, physicians learn to develop other thinking mechanisms in reaction to a stressful situation. Stressors lead to distress only when they are interpreted as threatening [50, 52]. The effect of anticipatory negative thoughts on behaviour is critical. Cognitive restructuring involves detecting negative or irrational thoughts and replacing them with more positive and constructive ones [43].

Finally, in the fourth session, physicians learn time management. Stress may disrupt behaviours and provoke waste of time. Managing time effectively is vital to quality of life, health and effective stress management [50]. Time management principles and techniques are divided into three categories: prioritizing, scheduling and implementing a life plan [54].

4. Communication skills training course: techniques and content

Curriculum

The 27-hour training course includes 17 hours of training in two-person interviewing skills (with a cancer patient alone), and 10 hours of training in three-person interviewing skills (with a cancer patient and a relative). The course includes a 1-hour session focusing on theoretical information and five 3-hour small-group (5 to 8 participants) role-playing sessions on communication skills in two-person interviews. Following this, there are a 1-hour session focusing on theoretical information and three 3-hour role-playing sessions on communication skills in three-person interviews.

Specific techniques

The efficacy of role-plays in changing communication behaviours has been established in a number of studies [3, 55-59]. The learner is given a particular role to play or alternatively 'creates' the role himself based on a medical problem he has

experienced as a junior physician. He may adopt the patient role, a significant learning experience in itself. It gives physician insights into how patients are affected by different communication strategies. A second learner plays the physician. It enables easy, repetitive practice of specific interviewing skills with ready access to feedback and rehearsal [3]. In this context, errors can be made safely. Physicians are prevented from causing harm and can replay the situation time and time again [3]. Through modelling, physicians can learn skills and behaviours while looking at the others when they are practicing the targeted skills. Modelling can have a profound effect on attitude [60, 61]. However, by itself it is not sufficient. Trainers should demonstrate key skills in action [48]. So the opportunity to practice key skills and receive constructive feedback concerning performance, is essential [48]. Feedback should be specific and descriptive rather than general and evaluative. It should focus on behaviour rather than personality [3].

Content

In the part of the course focusing on two-person interviewing skills, the theoretical session covers the aims, functions, and specificity of physician-patient communication in cancer care and focuses on how to handle cancer patients' distress. Two handbooks regarding these topics are recommended to participants [62, 63]. Physicians are then required to practice the principles discussed in the theoretical session through predefined role-plays with immediate feedback offered by experienced facilitators. Themes are for example breaking bad news, giving information and pain control. The following sessions focus on role-plays based on the clinical problems brought up by the participants themselves. During the course, the facilitator introduces gradually the several steps of a clinical interview: setting up the interview, assessing the patient's perception as regards his or her illness, informing the patient, addressing the patient's emotions with empathic responses and finally, closing the interview. It is primordial that these steps should be linked together and adapted to the clinical situation.

Based on recent results [34], a specific training focusing on three-person interviewing skills (with a cancer patient and a relative) has been proposed. Approximately 20% of medical interviews in cancer care imply the presence of a relative [29]. The presence of a third person changes the interactional dynamics of interviews [34]. In this course, the theoretical session presents adequate communication skills to use in three-person interviews. Physicians then have to

practice these communication skills in role-plays based on clinical problems brought up by the participants. Specific topics are covered such as the complex relationship between physician and family, rules of communication circularity, and the risk of collusion with the patient's family that an exclusive relationship between physician and patient or between physician and relative represents. The risk of collusion is common in the case of serious illness and has a negative impact on medical treatment and on the relationship between patient and relative [31]. Training aims to increase assessment, informative and supportive skills in circularity. It means to produce an interactional dynamic implying circularity between three persons, in order to offer an actual role to each protagonist.

5. Conclusions

To summarize, few physicians have received a formal training in communication during their curriculum [1, 3]. This might in part explain the substantial communication problems between doctors and patients contributing to an insufficient detection of psychological disturbances [9, 10], patient dissatisfaction with care [11, 12], poor compliance [12, 13], and increased risks of litigation for malpractice [12, 14-17]. This insufficient training in communication skills [1, 3] also contributes to everyday stress, lack of job satisfaction, and burnout among physicians, particularly when they have to manage breaking bad news [4, 18, 19]. Physicians are beginning to recognize the value of improving their communication skills [4] because developing effective communication skills is necessary to deal with difficult interviews with patients and their relatives. Communication skills training programs have shown to be useful in terms of changing physicians' attitudes and beliefs, improving recognition of cancer patients' psychosocial problems and physicians' acquisition of new skills in interviews with cancer patients [1, 11, 24-27].

However, few papers in the literature have detailed the content of communication skills training programs. Moreover, no training program has previously proposed an integration of a stress management skills training course and a communication skills training course. The objective of this paper is to describe the Belgian Interuniversity Curriculum (BIC) that brings together a stress management training course and a communication training course, with a specific part focusing on skills needed to handle three-person interviews. The stress management training

course has been added in order to prevent physicians' burnout. Training is learned-centred including different approaches (cognitive, behavioural and affective).

There is certainly a remaining concern: will learned skills be transferred in clinical practice? Although the usefulness of communication skills training programs for physicians has been widely assessed in the last decades, transfer of the acquired skills in clinical practice is still impaired by some barriers such as the inadequate amount of interviewing time [4]. The use of specific skills promoting patients' disclosure and relatives' inclusion may be facilitated by devoting a longer interviewing time for this purpose [34]. This need to devote more time for complex interviews should be recognized by institutions. Moreover, there is clear evidence that communication skills once learned are easily forgotten [23, 24, 28, 57, 64, 65]. The 40-hour training of the BIC is probably necessary to ensure this transfer in the clinical practice. Training efficacy could be improved through implementing training programs during medical school at all three levels of medical education (undergraduate, residency and continuing medical education), or through organizing training sessions at the workplace.

Given the numerous remaining concerns, there is the need to further assess training programs' efficacy. Assessments should include three different approaches which are complementary as they allow evaluating the effect of training programs at different levels [2]. The first approach involves measuring participant-based outcomes which can be proximal measures directly related to physicians behaviour in the observed interview (i.e. increased confidence, comfort in interaction) or distal measures concerning the more general functioning of physicians (such as burnout and stress). The second approach concerns behavioural assessments of communication skills. These measures rely on audio or video recordings of medical interviews and on the objective coding of behaviours using one of several interaction analysis systems such as the Cancer Research Campaign Workshop Manual [66] or the Roter Interaction Analysis System [67]. The third approach involves measuring patient-based outcomes which can also be proximal measures (such as patient satisfaction with the interview) or distal measures (such as anxiety and quality of life) [2].

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ARTICLE 3

Efficacy of a communication and stress management training on residents' stress to communicate, self-efficacy and burnout level: A randomized controlled study

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ABSTRACT

Purpose

To assess the efficacy of a communication and stress management skills training program on residents' stress to communicate, self-efficacy to communicate and to manage stress, and burnout level in a randomized controlled design.

Methods

Residents from various specialties, after a first assessment time, were randomly assigned to a 40-h training (intervention group) or to a waiting list (control group), according to a computer generated randomization list. Stress to communicate and self-efficacy were assessed with self-reported scales elaborated for the purpose of this study. Burnout level was assessed with the Maslach Burnout Inventory. These scales were filled in at baseline and after training for the intervention group, and 8 months after the first assessment time for the control group.

Results

Seventy-five residents were assessable. Group-by-time repeated measures analysis of variance showed a significant decrease in residents' stress to communicate ($p=.001$) and a significant increase in their self-efficacy to communicate ($p <.001$) and to manage stress ($p <.001$). No significant group-by-time changes were noted in burnout level.

Conclusion

While the training program reduces residents' stress to communicate and enhances their self-efficacy, it does not reduce their burnout level. Concerning burnout, assessing the impact of a training program associating person-directed and work-directed interventions may be suggested. The results of this training program may encourage its compulsory organization in the medical curriculum.

Keywords

Residents, training, communication, stress management, stress to communicate, self-efficacy, burnout level.

1. Introduction

Residency is a stressful period. In fact, residents have to manage numerous work-related variables such as intense work demands, limited autonomy, perception of work as stressful and work-home interference [1-6]. These work-related variables have been associated with development of residents' burnout [2], defined by the three dimensions of emotional exhaustion, depersonalization, and lack of personal accomplishment [7]. Burnout rates up to 82 % are reported among residents [2].

Furthermore, residents have to communicate in highly emotional contexts. They report being not sufficiently trained in communication skills during medical school [8]. They also report experiencing stress to communicate with patients and their relatives particularly in dealing with their reactions to bad news [8]. They report moreover that this stress to communicate prevent them from being effective in their roles [8]. It may be said that they have a lack of self-efficacy to communicate in interviews. Self-efficacy refers to a person's estimate of his or her ability to perform a specific task successfully [9]. It may be hypothesized that this stress to communicate and this lack of self-efficacy to communicate with patients and their relatives add to the before mentioned work-related variables to contribute to the development of residents' burnout. In fact, association between lack of self-efficacy to communicate and burnout has been already shown among physicians [10].

Interventions considering all these variables seem necessary to reduce residents' burnout level. Such interventions have to include not only a communication skills training but also a stress management skills training to reduce stress to communicate, to enhance self-efficacy and to reduce burnout level.

Communication skills training programs have already shown their efficacy in improving physicians' communication skills in simulated and actual interviews [11-13] and self-efficacy to communicate [14]. However, the impact of such programs on physicians' burnout level is inconsistent across studies [15-17]. To our knowledge, no such study exists among residents. Then, stress management skills training programs have also shown limited impact on burnout level in health professionals in general [18]. Among residents, two quasi-experimental studies have shown a positive impact of a stress management skills training program (i.e. relaxation techniques), but only on emotional exhaustion dimension [19, 20].

Therefore, a training program bringing together a communication skills training and a stress management skills training has been developed [21]. This program has already shown its efficacy in improving residents' communication skills in simulated interviews [22]. The aim of this randomized controlled study is to assess the efficacy of this program on stress to communicate, self-efficacy to communicate and to manage stress in interview, and burnout level among residents from various specialties (See Figure 1).

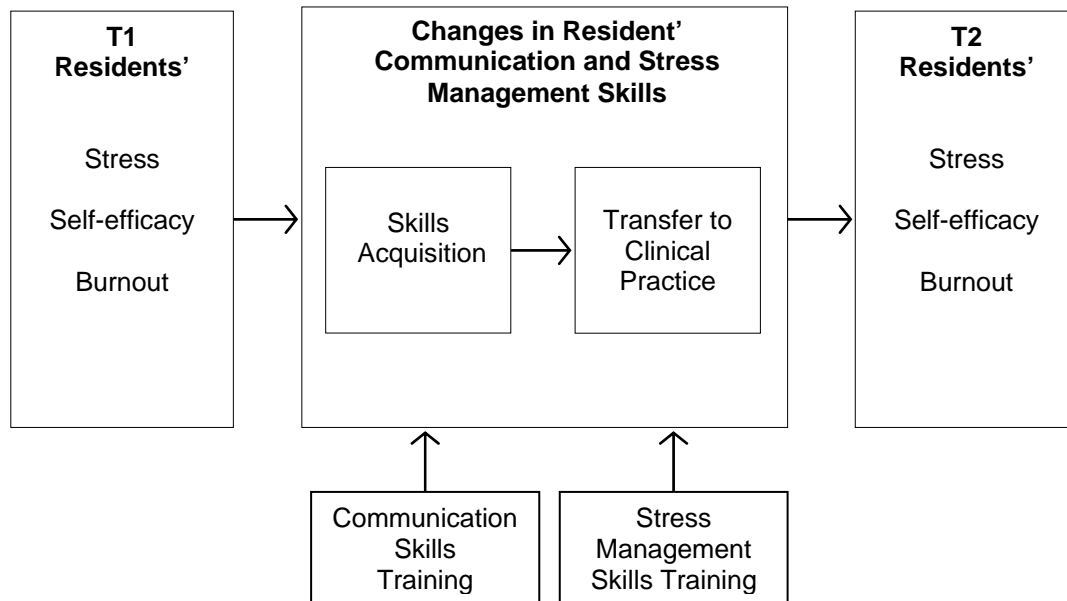


Figure 1. Efficacy of a communication and stress management skills training program on residents' stress to communicate, self-efficacy and burnout level.

2. Methods

Subjects

Residents were from various specialties. Belgian French-speaking institutions were asked to deliver an internal letter of invitation (n=2160). Due to the low response rate (n=41), attending physicians (n=117) were contacted by phone to obtain names of

residents. Five hundred and forty-four residents, including the 41 potentially interested, were contacted by phone, 17 were individually met and 23 information sessions were also organized in institutions. Those contacts were aimed at explaining the rationale for the study, the training program and its assessment procedure (Figure 2).

Study Design and Assessment Procedure

The training efficacy was assessed in a study allocating residents randomly after the first assessment time to a 40-h training (intervention group) or to a waiting list (control group), according to a computer generated randomization list (Figure 2). The training was spread over 6 months. The control group was invited to take part in the training program after the end of the second assessment time. Assessments were scheduled before training program (T1) and in the two months following the end of the program for the intervention group and 8 months after the first assessment time for the control group (T2). At each assessment time, the procedure included two standardized breaking bad news simulated interviews (one with and one without a cancer patient's relative), as well as a set of questionnaires. Only results concerning questionnaires will be reported here. The study has been approved by the local ethics committee.

Training Program

The training program included a 30-h communication skills training and a 10-h stress management skills training. Sessions were spread over a 6-month period to allow residents to further practice the learned skills. The program included two day-sessions and nine evening sessions in small groups (up to 10 participants). The communication skills training consisted of ten sessions (two 1-h, one 4-h, and seven 3-h sessions): a 17-h communication skills training in two-person interviews and a 10-h communication skills training in three-person interviews. The 1-h sessions focused on theoretical information presenting adequate communication skills to use in two-person and in three-person interviews. In the other sessions, residents were invited to practice the principles discussed in the theoretical sessions through predefined role-plays with immediate feedback offered by experienced facilitators and then through role-plays based on the clinical problems brought up by the participants themselves. The stress management skills training consisted of four 2.5-h sessions focused on four topics: detection of job stressors and stress outcomes, relaxation techniques, cognitive

restructuring and time management. This training provided residents with a series of techniques that could help them to better manage work-related stress. A last 3-h session promoted integration and use of learned skills. This program has been described in details in Bragard et al. [21].

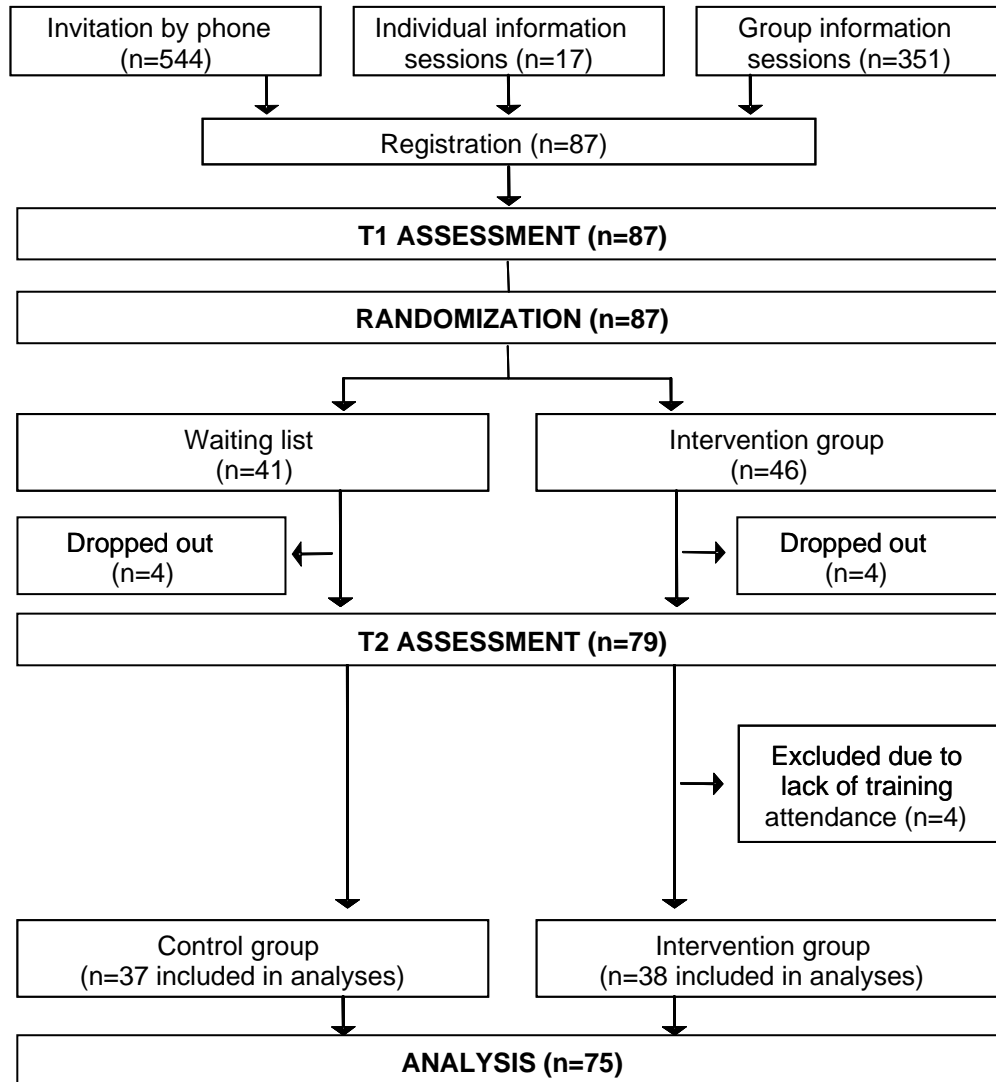


Figure 2. Recrutement, study design, training and assessment procedures.

Questionnaires

Residents' person-related variables were collected with two questionnaires: resident's socioprofessional data and State Trait Anxiety Inventory - Trait [23]. Their work-related variables were collected with two other questionnaires: Job Stress Survey [24] and Quality of Work Life Systemic Inventory [25]. Training efficacy was assessed with the following scales: Stress to Communicate Scale, Self-Efficacy to Communicate Scale, Self-Efficacy to Manage Stress Scale and Maslach Burnout Inventory [26].

- **Resident's socioprofessional data.** Data were collected about resident's age, gender, marital status, medical specialty, year of training, number of years of practice in medicine and whether or not they had had some previous communication training and stress management training in the last year.
- **State Trait Anxiety Inventory - Trait (STAI-T)** [23]. This validated French-translated 20-item questionnaire [27] measures general trait anxiety, referring to relatively stable individual differences in anxiety-processes. Items have four response categories from "almost never" to "almost always", giving scores from 20 to 80.
- **Job Stress Survey (JSS)** [24, 28]. This validated French-translated 30-item questionnaire [24] assesses the perceived intensity and frequency of occurrence of job-related stressor events that are likely to affect the psychological well-being of employees who have been exposed to them during the preceding 6 months. Summing the ratings of each item provides an overall Job Stress Index score, based on the sum of the cross-products of the severity and frequency scores.
- **Quality of Work Life Systemic Inventory (QWLSI)** [25]. This validated French-translated 33-item questionnaire [29] measures individuals' areas of work likely to influence their general quality of life, organizational performance, and consequently the overall functioning of society. It uses a Visual Analog Scale-type dial that consists of an ungraduated circle. The ideal situation is at one end of the circle and the worst possible situation at the other. Using arrows, subjects must indicate in the circle how far from a predetermined ideal their current state (state score) and a state they would consider satisfactory (goal score) are located. The global gap score corresponding to quality of work life is obtained by calculating the difference between the state score and the goal score, weighted by the importance attributed to the item by the respondent and by the perceived

nature of any changes in this domain. The more the gap score is low, the more the quality of work life is high. The 33 items are shared into 8 subscales: compensation and benefits (i.e. income), career path (i.e. professional development), arrangement of work schedule (i.e. flexible schedule), atmosphere with colleagues (i.e. competitiveness), atmosphere with superiors (i.e. communication and information), characteristics of physical environment related to task (i.e. equipment), factors influencing appreciation of tasks (i.e. autonomy in performance) and support offered to employee (i.e. allocation of work during absence).

- **Stress to Communicate Scale.** Residents rate their stress to communicate in a two-person interview with a cancer patient on a 10-point visual analogue scale (VAS) and in a three-person interview with cancer patient and relative on two 10-point VAS. Ratings range from 0 (not at all stressful) to 10 (extremely stressful). Due to the high positive correlation ($r=.87$) between the two VAS in the three-person version, a global score is computed through calculating the mean of both scores.
- **Self-Efficacy to Communicate Scale.** This 18-item scale adapted from Parle et al.'s scale [30] assesses residents' self-efficacy to communicate in a two-person interview with a cancer patient (9 items) and in a three-person interview with cancer patient and relative (9 items). It is a 5-point Likert scale ranging from "not at all able" (1) to "extremely able" (5) self-reported instrument. With a factorial analysis, each 9-item subscale was organized into 3 factors: elicitation of concerns (4 items), detection of distress (2 items) and complex communication skills such as breaking bad news (3 items).
- **Self-Efficacy to Manage Stress Scale.** This 8-item scale adapted from Parle et al.'s scale [30] assesses residents' self-efficacy to manage stress in a two-person interview with a cancer patient (4 items) and in a three-person interview with cancer patient and relative (4 items). It is a 5-point Likert scale ranging from "not at all able" (1) to "extremely able" (5) self-reported instrument. With a factorial analysis, each 4-item subscale was organized into 1 factor.
- **Maslach Burnout Inventory (MBI) [26].** This validated French-translated 22-item scale [31] assesses individuals' burnout level. It is a 7-point Likert scale ranging from never (0) to daily (6) self-reported instrument assessing the 3 dimensions of the burnout syndrome with 3 separate subscales: emotional exhaustion, depersonalization and personal accomplishment. The burnout scores may be

conceptualized either as continuous variables or as something that is low, average or high [26]. As this study was not specifically directed towards physicians in burnout, the continuous scores were used.

Statistical analysis

Statistical analyses of the data consisted of a comparative analysis of both groups of residents at baseline using t tests and χ^2 tests as appropriate. Time and group-by-time changes in the residents' stress to communicate, self-efficacy and burnout level were processed using repeated-measures analysis of variance (MANOVA). All tests were two-tailed and the alpha was set at 0.05. The analyses were performed with SPSS Version 13.0 for PC (SPSS Inc, Chicago, IL).

3. Results

Recruitment

Following the recruitment process, 87 residents registered for the training as shown in Figure 2. Barriers to participation included mainly personal and institutional reasons, time limitations, training duration and time consuming assessment procedures. On 87 residents, 4 residents who attended less than 1 hour of the communication skills training and less than 1 hour of the stress management skills training were not considered assessable. Eight participants were excluded because they did not complete assessment procedure after the training. Seventy-five residents were thus assessable. Comparison of included and excluded residents showed no statistically significant differences for gender but significant differences for age and number of years of practice. Excluded residents were older ($\mu=30,5$; $SD=4,4$) and had much years of practice ($\mu=4,2$; $SD=2,2$) than included residents ($\mu=28$; $SD=2$ and $\mu=2,7$; $SD=1,5$ respectively).

Residents' Person- and Work-Related Variables

Residents' person- and work-related variables are shown in Table 1. Statistically significant differences were found at baseline between intervention group and control group for marital status, specialty and previous communication training. At baseline, both groups of residents had a high level of trait anxiety (STAI-T) in comparison with

the mean score of 35 (SD=9) in normal population [23]. They also had a high level of job stress (JSS) in comparison with the median score ranging between 59 and 64 [24]. They also had a high global gap (QWLSI), meaning a low quality of work life in comparison with the mean global gap of 5 which is the limit for a good quality of work life [29]. Moreover, the gap score of 2 subscales (arrangement of work schedule and atmosphere with superiors) was particularly high. Two other subscales (career path and support offered to employee) were not reported due to an insufficient response rate.

Efficacy of the Training on Residents' Stress to Communicate

Stress to communicate scores were significantly different at baseline between two groups for Two-Person ($t=2.39$, $p=.020$) and Three-Person versions ($t=2.02$, $p=.047$): scores were higher in intervention group than in control group. As shown in Table 2, MANOVA group-by-time changes were significant in scores in Two-Person Interview ($F=5.42$; $p=.023$), in Three-Person Interview ($F=5.84$; $p=.018$) and in Total ($F=11.49$; $p=.001$): stress to communicate scores decreased significantly more in intervention group than in control group.

Efficacy of the Training on Residents' Self-Efficacy to Communicate

Self-efficacy to communicate scores were similar at baseline in two groups. As shown in Table 2, MANOVA group-by-time changes were significant in scores in Two-Person Interview ($F=19.83$; $p<.001$), in Three-Person Interview ($F=4.63$; $p=.035$) and in Total ($F=16.96$; $p<.001$): scores increased significantly more in the intervention group than in the control group.

Table 1. Resident's person-related and work-related variables (n = 75)

	Intervention Group (n = 38)			Control Group (n = 37)		
	n	Mean (SD)	%	n	Mean (SD)	%
Residents' person-related variables						
Age		27.8 (1.5)			28.1 (2.4)	
Gender						
Male	13		34.2	18		48.6
Female	25		65.8	19		51.4
Marital status						
Single	16		42	10		27
Married or living with partner	10		26.3	22		59.5
Family	12		31.6	5		13.5
Specialty						
Oncology, hematology and radiotherapy	3		7.9	10		27
Gynaecology	14		36.8	7		18.9
Internal medicine and other	21		55.3	20		54.1
Year of training						
1	6		15.8	7		18.9
2	10		26.3	4		10.8
3	14		36.8	12		32.4
4	5		13.2	9		24.3
5	3		7.9	4		10.8
6	0		0	1		2.7
Medical practice (in years)		2.6 (1.3)			2.8 (1.6)	
Previous communication skills training	4		10.5	0		0
Previous stress management skills training	2		5.3	0		0
Trait anxiety (STAI-T)		45.4 (6.6)			43.7 (8.6)	
Residents' work-related variables						
Job stress (JSS)		91.4 (31.5)			82.9 (27.2)	
Quality of work life (QWLSI)						
Compensation and benefits		4.9 (4.5)			7.2 (4.6)	
Arrangement of work schedule		8.7 (6.4)			9.4 (6.6)	
Atmosphere with colleagues		3.1 (4.8)			3.2 (3.5)	
Atmosphere with superiors		6.8 (6.0)			6.6 (4.3)	
Characteristics of physical environment related to task		7.0 (8.9)			5.4 (6.2)	
Factors influencing appreciation of tasks		5.5 (3.4)			4.7 (2.9)	
Global		6.1 (3.4)			6 (3)	

Abbreviations: SD, standard deviation; STAI-T, State-Trait Anxiety Inventory-Trait; JSS, Job Stress survey; QWLSI, Quality of Work Life Systemic Inventory.

Table 2. Efficacy of the Training Program on Residents' Stress to Communicate, Self-Efficacy and Burnout Level (n=75)

	Mean (SD)				Manova			
	Intervention Group (n = 38)		Control Group (n = 37)		Time		Group x Time	
	T1	T2	T1	T2	F _{1,73}	p	F _{1,73}	p
Stress to communicate								
Two-person interview	61.9 (19.3)	49.3 (23.9)	49.6 (25.1)	48.8 (21.3)	7.13	.009	5.42	.023
Three-person interview	63.1 (19.4)	54.1 (21.4)	54.4 (19.2)	58.0 (18.4)	1.10	.297	5.84	.018
Total	62.5 (15.9)	51.7 (17.3)	52.5 (17.6)	53.7 (15.7)	7.41	.008	11.49	.001
Self-efficacy to communicate								
Two-person interview	3.0 (0.4)	3.4 (0.5)	3.1 (0.5)	3.1 (0.6)	15.69	<.001	19.83	<.001
Three-person interview	2.6 (0.6)	3.1 (0.6)	2.6 (0.6)	2.8 (0.7)	19.93	<.001	4.63	.035
Total	2.8 (0.5)	3.3 (0.5)	2.8 (0.5)	2.9 (0.6)	31.36	<.001	16.96	<.001
Self-efficacy to manage stress								
Two-person interview	2.7 (0.7)	3.4 (0.6)	3.0 (0.8)	3.2 (0.8)	22.12	<.001	10.03	.002
Three-person interview	2.8 (0.6)	3.4 (0.6)	2.8 (0.6)	3.0 (0.7)	47.93	<.001	9.92	.002
Total	2.8 (0.6)	3.4 (0.5)	2.9 (0.6)	3.1 (0.7)	48.45	<.001	15.49	<.001
Burnout Level								
Emotional exhaustion	25.5 (9.1)	24.3 (9.6)	25.8 (8.7)	22.5 (9.2)	7.20	.009	1.58	.213
Depersonalization	9.5 (5)	10.1 (4.9)	8.7 (5.0)	8.9 (5.0)	0.81	.371	0.21	.651
Personal accomplishment	37.1 (6.1)	38.0 (5.5)	36.4 (4.7)	37.3 (6.0)	2.96	.090	<.001	.957

Abbreviations: SD, standard deviation; Manova, repeated measures analysis of variance; F, F-value of Fisher-Snedecor statistic; p, significance.

Efficacy of the Training on Residents' Self-Efficacy to Manage Stress

Self-efficacy to manage stress scores were similar at baseline in two groups. As shown in Table 2, MANOVA group-by-time changes were significant in scores in Two-Person Interview ($F=10.03$; $p=.002$), in Three-Person Interview ($F=9.92$; $p=.002$) and in Total ($F=15.49$; $p<.001$): scores increased significantly more in the intervention group than in the control group.

Efficacy of the Training on Residents' Burnout Level

The emotional exhaustion, depersonalization and personal accomplishment scores were similar at baseline in two groups. As shown in Table 2, no significant MANOVA group-by-time changes were noted in residents' emotional exhaustion, depersonalization and personal accomplishment. Significant MANOVA time changes were noted in residents' emotional exhaustion ($F=7.20$; $p=.009$).

As shown in Table 3, in Intervention Group, 47.4% of residents have high level of emotional exhaustion, 47.4% have a high level of depersonalization and 21.1% have a low level of personal accomplishment at baseline. In Control Group, 51.4% of residents have high level of emotional exhaustion, 40.5% have a high level of depersonalization and 27% have a low level of personal accomplishment at baseline.

Table 3. Residents' Burnout Level at Baseline (n = 75)

	Intervention Group (n = 38)				Control Group (n = 37)			
	T1		T2		T1		T2	
	Mean (SD)	N (%)	Mean (SD)	N (%)	Mean (SD)	N (%)	Mean (SD)	N (%)
Burnout Level (MBI)*								
Emotional exhaustion	25.5 (9.1)		24.3 (9.6)		25.8 (8.7)		22.5 (9.2)	
Low <19		6 (15.8)		7 (18.4)		8 (21.6)		11 (29.7)
Average 19-26		14 (36.8)		15 (39.5)		10 (27)		13 (35.1)
High >26		18 (47.4)		16 (42.1)		19 (51.4)		13 (35.1)
Depersonalization	9.5 (5)		10.1 (4.9)		8.7 (5)		8.9 (5)	
Low <6		10 (26.3)		6 (15.8)		13 (35.1)		11 (29.7)
Average 6-9		10 (26.3)		15 (39.5)		9 (24.3)		7 (18.9)
High >9		18 (47.4)		17 (44.7)		15 (40.5)		19 (51.4)
Personal accomplishment	37.1 (6.1)		38 (5.5)		36.4 (4.7)		37.3 (6)	
Low <34		8 (21.1)		8 (21.1)		10 (27)		10 (27)
Average 34-39		16 (42.1)		14 (36.8)		18 (48.7)		13 (35.1)
High >39		14 (36.8)		16 (42.1)		9 (24.3)		14 (37.8)

Abbreviations: SD, standard deviation; MBI, Maslach Burnout Inventory.

*The total score for each subscale is categorized "low", "average" or "high" according to predetermined cut-off scores based on normative data from a sample of American health professionals²⁶.

4. Discussion

The aim of this randomized controlled study is to assess the efficacy of a communication and stress management skills training program on stress to communicate, self-efficacy to communicate and to manage stress, and burnout level among residents from various specialties.

The training program reduces significantly residents' stress to communicate in two-person and three-person interviews in the intervention group compared to controls. Residents' communication skills improvements in simulated interviews shown in Lienard et al. [22] combined with techniques acquired in the stress management skills training may have contributed to reduce this stress to communicate.

The training program enhances significantly residents' self-efficacy to communicate and to manage stress in two-person and three-person interviews in the intervention group compared to controls. Experiential learning using role-play in small groups used in this training program may have contributed to these improvements. In fact, Parle et al. [30] have suggested that experiential learning using role-play may bring together the four types of determinants of self-efficacy identified by Bandura [9]: previous performances (mastering a task increases self-efficacy), vicarious experiences or modelling (seeing other persons mastering a task increases self-efficacy), verbal persuasion (persuading the person that he/she has the required competences for this task increases self-efficacy) and physiological reactions (interpreting positively the physiological reactions experienced during the task increases self-efficacy).

The training program does not reduce residents' burnout level. It must be recalled that a great proportion of residents in both groups at baseline have a high level of emotional exhaustion or a high level of depersonalization. It must also be recalled that residents' emotional exhaustion decreases significantly over time in both groups. However this decrease is weak. The mean of emotional exhaustion after training is still in the average category and their levels of depersonalization and personal accomplishment do not change. The question of how to reduce burnout level remains unclear. Work-directed interventions may be needed to consider the work-related variables met by residents [7]. This idea is supported in our study by the fact that these work-related variables are stressful at baseline (high level of job stress and low quality of work life particularly concerning arrangement of work schedule and

atmosphere with superiors) and may have contribute to their high burnout level. The stress generated by these work-related variables may be so great that it may have reduced the efficacy of our person-directed intervention. Work-directed interventions such as reducing working hours, improving supervision, increasing participation in decision-making, enhancing time planning and role definition, and organizing staff support group (that is, regular meetings during which care providers have the opportunity to share personal, work-related experiences and feelings with colleagues) may be useful in this context. Some of these interventions have already been associated with lower burnout level [32-35].

The validity of the Maslach Burnout Inventory (MBI) in this population must also be discussed. It may be suggested that MBI in this study assesses stress related to variables such as work overload or adjustment to a new job. Burnout should be more considered as the end result of long exposure to chronic job stressors occurring later in the career [7].

To conclude, while the training program reduces residents' stress to communicate and enhances their self-efficacy to communicate and to manage stress, it does not reduce their burnout level. Concerning burnout, assessing the impact of a training program associating person-directed and work-directed interventions may be suggested. The results of this training program may encourage its compulsory organization in the medical curriculum.

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ARTICLE 4

Predictors and correlates of changes in residents' burnout level: Influence of person- and work-related variables

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ABSTRACT

Objective

It is well recognized that residents may experience burnout. There are however not enough studies which have investigated person- and work-related variables associated with the development of residents' burnout level. The aim of this study is to identify predictors and correlates – person- and work-related variables - of changes in residents' burnout level.

Methods

Seventy-nine residents from various specialties included in a randomized controlled study which has failed to show the efficacy of an intervention designed to reduce burnout were assessed at an 8-month interval. Burnout level (emotional exhaustion, depersonalization and personal accomplishment) was assessed with the Maslach Burnout Inventory (MBI). Numerous person- (socioprofessional, psychological and communicational) and work-related variables were collected at each assessment time.

Results

Three models of regression have been tested. Person- and work-related variables explain 46% of the variance in changes in MBI emotional exhaustion level, 27% of the variance in changes in MBI personal accomplishment level and only 14% of the variance in changes in MBI depersonalization level.

Conclusion

This study shows that person- and work-variables influence changes in residents' burnout level. This may indicate that programs designed to reduce residents' burnout level should combine person- and work-directed interventions.

Keywords

Residents, burnout, predictors, correlates, person-related variables, work-related variables.

1. Introduction

Burnout is defined by three dimensions: emotional exhaustion (feeling emotionally spent), depersonalization (displaying a detached attitude toward patients), and personal accomplishment (experiencing a low sense of efficacy at work) [1]. Literature focusing on residents' burnout is relatively scarce [2, 3]. Widely varying burnout rates are reported among residents ranging from 18% to 82% depending on burnout criterion used [2]. Some person- and work-related variables are reported to be related to residents' burnout. Among person-related variables, being a men [4], young [5], unmarried [6] and introverted [7] have been reported to be weakly or moderately related to residents' burnout [2]. Other variables such as stress to deliver bad news are reported by residents as preventing them from being effective in their roles [8] and may thus also contribute to their burnout. Among work-related variables, organization-related variables such as work overload [9] and work-home interference [10, 11] have been reported to be strongly related to residents' burnout [2].

There are however not enough studies which have investigated person- and work-related variables associated with residents' burnout development. In other words, there is a need to identify person- and work-related variables predicting or being associated with changes in residents' burnout level in order to develop effective interventions to reduce this burnout level. The aim of this study is thus to identify predictors and correlates - person- (socioprofessional, psychological and communicational) and work-related variables - of changes in burnout level.

2. Methods

Subjects and assessment procedure

Residents included in a randomized controlled study which has failed to show the efficacy of an intervention designed to reduce burnout [12] were from various specialties. A detailed description of this intervention lasting 6 months has been published previously [13]. Recruitment had implied asking Belgian French-speaking institutions to deliver an internal letter of invitation (n=2160). Due to the low response rate (n=41), attending physicians (n=117) were contacted by phone to obtain names of

residents. Five hundred and forty-four residents, including the 41 potentially interested, were contacted by phone, 17 were individually met and 23 group information sessions were also organized in institutions. Those contacts were aimed at explaining the rationale for the study, the training program and its assessment procedure (Figure 1). Two assessment times were scheduled at an 8-month interval. Residents' burnout levels, person- and work-related variables which have been selected for this study were collected at each assessment time. The study was approved by the local ethics committee.

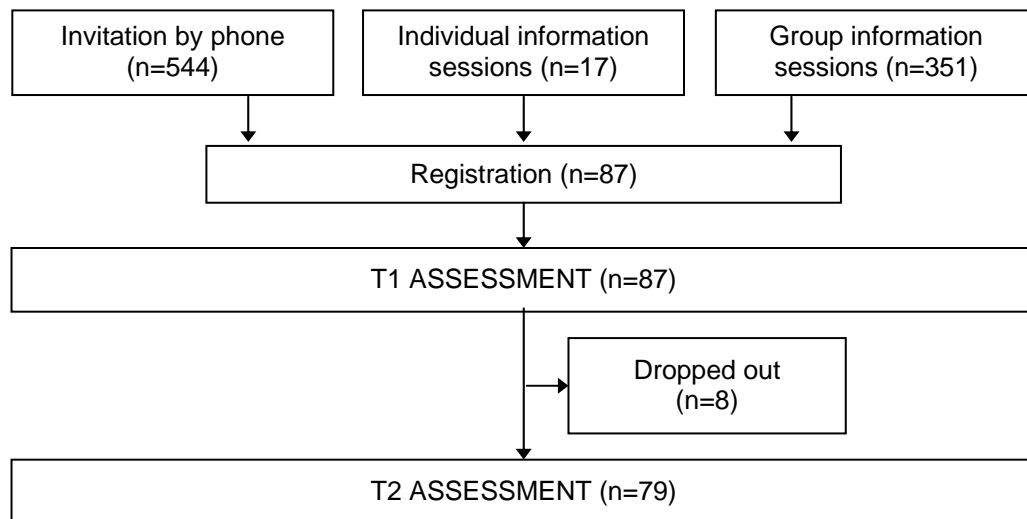


Figure 1. Recrutement, study design and assessment procedures.

Assessment of burnout level

Residents' burnout level was assessed with Maslach Burnout Inventory.

- **Maslach Burnout Inventory (MBI)** [14]. This validated French-translated 22-item questionnaire [15] assesses individuals' burnout level. It is a 7-point Likert scale ranging from never (0) to daily (6) self-reported instrument assessing the 3 dimensions of the burnout syndrome with 3 separate subscales: emotional exhaustion, depersonalization and personal accomplishment. The burnout scores

may be conceptualized either as continuous variables or as something that is low, average or high [14]. As this study was not specifically directed towards burned-out residents, the continuous scores were used.

Assessment of person-related variables

Assessment of person-related variables included socioprofessional (a socioprofessional data questionnaire), psychological (General Health Questionnaire, State-Trait Anxiety Inventory- Trait and Rotter I-E Scale) and communicational variables (Stress to Communicate Scale, Self-Efficacy Scale, Ways of Coping Checklist and Assessment of Communication Skills).

- **Socioprofessional data questionnaire.** Data were collected about resident's age, gender, marital status, medical specialty, number of years of work experience, whether or not they have had some previous communication training and stress management training in the last year.
- **General Health Questionnaire (GHQ)** [16]. This validated French-translated 28-item questionnaire [17] assesses short-term changes in mental health. It is a 4-point Likert scale ranging from "better than usually" (0) to "much less than usually" (3) self-reported instrument. Factor analysis showed 4 main factors: somatic symptoms, anxiety, social dysfunction, and depression.
- **State-Trait Anxiety Inventory-Trait (STAI-T)** [18]. This validated French-translated 20-item questionnaire [19] measures general trait anxiety, referring to relatively stable individual differences in anxiety-processes. It is a 4-point Likert scale ranging categories from "almost never" (1) to "almost always" (4).
- **Rotter I-E Scale** [20]. This validated French-translated 30-item questionnaire [21] measures residents' locus of control (LOC), referring to their perceived ability to influence events in their own life. This scale is a self-report scale with a scoring range from 0 (internal LOC) to 23 (external LOC) excluding six buffer items.
- **Stress to Communicate Scale.** This scale assesses residents' stress to communicate in interview with a cancer patient on a 10-point visual analogue scale (VAS) ranging from 0 (not at all stressful) to 10 (extremely stressful). Other studies have already shown the validity of a single-item (VAS or Likert scale) to measure stress, quality of life or depression [22-24].

- **Self-Efficacy Scale.** This 13-item scale adapted from Parle et al.'s scale [25] assesses residents' self-efficacy to communicate (9 items) and to manage stress (4 items) in interview with a cancer patient. It is a 5-point Likert scale ranging from "not at all able" (1) to "extremely able" (5) self-reported instrument. A factorial analysis has organized the 9-item part into 3 factors: elicitation of concerns, detection of distress and complex communication skills such as breaking bad news. The 4-item part is organized into 1 factor.
- **Ways of Coping Checklist (WCC)** [26]. This validated French-translated 27-item scale [27] assesses coping responses. It is a 4-point Likert scale ranging from "no" (1) to "yes" (4) self-reported instrument. It includes three subscales: problem-focused coping aiming at solving the problem that faces the person, emotion-focused coping involving cognitive processes directed at lessening emotional distress and social support-focused coping aiming at finding others' support. The scale's instructions were adapted to assess residents' specific coping responses in the context of a communication problem in a patient interview.
- **Assessment of Communication Skills.** The communication skills were assessed by analysing the transcripts of a standardized simulated breaking bad news interview with a French communication analysis software 'LaComm'. The standardized simulated breaking bad news interview implied an actress playing a breast cancer patient trained to carefully maintain the same behaviors and the same emotional level over the entire study. She was instructed to express concerns about the medical and marital consequences of the disease. Before the standardized simulated breaking bad news interview, resident had enough time to learn the case description and objective of the interview. Resident was then introduced to the actress and told that, after 20 minutes, the interview would be put to an end. This interview was audiotaped. A clock was available for time management, and the recording room was made to look as realistic as possible. Simulated interview was accepted as a valid method used to represent how a physician would perform with real patients [28]. The theme of cancer was chosen to have a common denominator between all participants. All audiotapes were transcribed. Transcripts were assessed for their quality by trained psychologists and rated using the French communication analysis software LaComm. This software allowed analyzing health care professionals' communication skills utterance by utterance. Each utterance was tagged by the LaComm databases of preset categories of communication skills. These preset categories were adapted

from the categories of the French translation and adaptation of the Cancer Research Campaign Workshop Evaluation Manual [29] and were redefined by a panel of experts. LaComm classifies utterances in terms of assessment skills (allowing to assess patient physical problems or concerns, emotional expressions or cognitions, information and supportive skills), information skills (allowing to inform patient about the context of the interview, the medical examination or about various topics) and supportive skills (allowing to support patient by asking him or her to express his or her concerns). LaComm is written in Visual Basic 6 and use Microsoft.Jet.OLEDB.4.0 to link to ACCESS 2000.

Assessment of work-related variables

Assessment of work-related variables included Job Stress Survey and Quality of Work Life Systemic Inventory.

- **Job Stress Survey (JSS)** [30]. This validated French-translated 30-item questionnaire [31] assesses the perceived intensity and frequency of occurrence of job-related stressor events that are likely to affect the psychological well-being of employees who have been exposed to them during the preceding 6 months. Summing the ratings of each item provides an overall Job Stress Index and two other index of Job Pressure and Lack of Organizational Support.
- **Quality of Work Life Systemic Inventory (QWLSI)** [32]. This validated French-translated 33-item questionnaire [33] measures individuals' areas of work likely to influence their general quality of life, organizational performance, and consequently the overall functioning of society. It uses a Visual Analog Scale-type dial that consists of an ungraduated circle. The ideal situation is at one end of the circle and the worst possible situation at the other. Using arrows, subjects must indicate in the circle how far from a predetermined ideal their current state (state score) and a state they would consider satisfactory (goal score) are located. The global gap score corresponding to quality of work life is obtained by calculating the difference between the state score and the goal score, weighted by the importance attributed to the item by the respondent and by the perceived nature of any changes in this domain. The more the gap score is low, the more the quality of work life is high. Items are shared into 8 subscales: compensation and benefits (i.e. income), career path (i.e. professional development), arrangement of work schedule (i.e. flexible schedule), atmosphere with colleagues (i.e. competitiveness), atmosphere with superiors (i.e. communication

and information), characteristics of physical environment related to task (i.e. equipment), factors influencing appreciation of tasks (i.e. autonomy in performance) and support offered to employee (i.e. allocation of work during absence).

Statistical analysis

T-tests for paired sample were conducted to compare residents' burnout level at an 8-month interval. Changes in residents' burnout level, person- and work-related variables were computed through the difference between residents' scores at baseline and 8 months later. Stepwise Multiple Regression Analysis was computed to examine predictors and correlates of changes in residents' burnout level. Three models have been tested respectively for changes in emotional exhaustion, depersonalization and personal accomplishment levels. A preliminary analysis was used to identify predictors and correlates among person- and work-related variables (Spearman correlations, t-tests for independent sample or one-way ANOVA as appropriate). Variables were entered in the regression analyses if they satisfied the inclusion criteria (i.e., $p < .10$). The analyses were performed with SPSS Version 13.0 for PC (SPSS Inc, Chicago, IL).

3. Results

Recruitment

Following the recruitment procedure, 87 residents registered for the study. Barriers to participation included mainly personal and institutional reasons, time limitations, training duration and time consuming assessment procedures. Eight participants were excluded because they did not complete assessment procedure 8 months later. Seventy-nine residents were thus assessable (Figure 1). Comparison of included and excluded residents showed no statistically significant differences for gender but significant differences for age and number of years of practice. The excluded residents were older ($\mu=31.6$; $SD=5$) and had much years of practice ($\mu=4.6$; $SD=2.5$) than the included residents ($\mu=28$; $SD=1.9$ and $\mu=2.8$; $SD=1.5$ respectively).

Changes in residents' burnout level

As shown in Table 1, nearly 50% of residents had high levels of emotional exhaustion or depersonalization at baseline. Twenty-four percent of residents had a low personal accomplishment level. The t-test for paired sample was statistically significant for emotional exhaustion level ($t=2.07$; $p=.042$) showing a significant decrease in the 8-month interval. No statistically significant results were found for depersonalization and personal accomplishment levels.

Table 1. Changes over Time in Residents' Burnout Level (n = 79)

	Descriptive analysis				Changes in Burnout Level	
	At baseline		8 months later		t	p
	Mean (SD)	n (%)	Mean (SD)	n (%)		
Burnout Level (MBI)*						
Emotional exhaustion	25.4 (8.7)		23.7 (9.4)		2.07	0.042
Low <19		14 (17.7)		18 (22.8)		
Average 19-26		28 (35.4)		31 (39.2)		
High >26		37 (46.8)		30 (38.0)		
Depersonalization	9.2 (4.9)		9.6 (4.9)		-0.81	0.418
Low <6		23 (29.1)		17 (21.5)		
Average 6-9		20 (25.3)		23 (29.1)		
High >9		36 (46.6)		39 (49.4)		
Personal accomplishment	36.5 (6.1)		37.5 (5.9)		-1.85	0.068
Low <34		19 (24.0)		20 (25.3)		
Average 34-39		36 (46.6)		27 (34.2)		
High >39		24 (30.4)		32 (40.5)		

Abbreviations: SD, standard deviation; t, t-tests for paired sample; p, significance; MBI, Maslach Burnout Inventory.

*A high degree of burnout is indicated by high scores on the emotional exhaustion and depersonalization subscales and low scores on the personal accomplishment subscale; the total score for each subscale is categorised "low", "average" or "high" according to predetermined cut-off scores based on normative data from a sample of American health professionals¹⁴.

Predictors and correlates of changes in residents' burnout level

Changes in emotional exhaustion level had a mean of -1.7 (SD=7.5), changes in personal accomplishment level had a mean of 0.9 (SD=4.6), and changes in depersonalization level had a mean of 0.4 (SD=4.1).

A preliminary correlational analysis was used to identify predictors and correlates of changes in residents' burnout level. Concerning person-related variables (Tables 2a and 2b), changes in residents' emotional exhaustion level were significantly correlated with LOC ($r=.222$; $p=.49$), stress to communicate ($r=.258$; $p=.022$) and emotional-focused coping at baseline ($r=.291$; $p=.009$), and with changes in GHQ ($r=.294$; $p=.009$) and in STAI-T ($r=.449$; $p=.000$). Changes in residents' depersonalization level were significantly correlated with social support-focused coping at baseline ($r=.295$; $p=.008$) and with changes in social support-focused coping ($r=-.356$; $p=.001$). Changes in residents' personal accomplishment level were significantly correlated with work experience at baseline ($r=.255$; $p=.023$) and with changes in LOC ($r=-.243$; $p=.031$) and in emotional-focused coping ($r=-.291$; $p=.009$).

Concerning work-related variables (Table 3), changes in residents' emotional exhaustion level were significantly correlated with changes in lack of organizational support index ($r=.339$; $p=.002$), in job stress index ($r=.312$; $p=.005$) and in quality of work life concerning atmosphere with colleagues ($r=.271$; $p=.016$).

Table 2a. Influence of Person-Related Variables on Changes in Residents' Burnout Level (n=79)

	Descriptive Analysis			Association ¹ with Changes ² in Burnout Level		
	n	Mean (SD)	%	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Person-related variables						
Socioprofessional variables						
Baseline						
Age		28 (1.9)		0.100	-0.152	0.171
Gender						
Male	32		40.5	-0.611	-1.117	-0.621
Female	47		59.5			
Marital status						
Single	28		35.4	1.754	0.403	0.303
Married or living with partner	33		41.8			
Family	18		22.8			
Medical specialty						
Oncology, hematology and radiotherapy	14		17.7	0.199	2.044	0.192
Gynaecology	21		26.6			
Internal medicine and other	44		55.7			
Work experience (in years)		2.8 (1.5)		0.125	-0.205°	0.255*
Previous communication skills training	4		5.1	-0.682	0.471	0.306
Previous stress management skills training	2		2.5	-0.143	1.938	-0.302
Psychological variables						
Baseline						
General Health Questionnaire (GHQ)		20.9 (9.3)		-0.060	-0.087	-0.206°
State-Trait Anxiety Inventory-Trait (STAI-T)		44.5 (7.6)		-0.049	0.048	-0.112
Rotter I-E Scale (LOC)		11.4 (3.2)		0.222*	0.033	0.022
Changes²						
General Health Questionnaire (GHQ)		0.6 (12.4)		0.294**	0.036	-0.070
State-Trait Anxiety Inventory-Trait (STAI-T)		-1.3 (6.0)		0.449***	0.181	0.094
Rotter I-E Scale (LOC)		-0.6 (3.3)		-0.053	0.118	-0.243*

°p ≤ .10 *p ≤ .05 **p ≤ .01 ***p ≤ .001

¹Computed through Spearman Correlation or t-tests for independent sample or oneway Anova as appropriate.

²Computed through the difference between residents' scores at baseline and 8 months later.

Table 2b. Influence of Person-Related Variables on Changes in Residents' Burnout Level (n = 79)

	Descriptive Analysis	Association ¹ with Changes ² in Burnout Level		
	Mean (SD)	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Person-related variables				
Communicational variables				
Baseline				
Stress to communicate scale	56.5 (23.2)	0.258*	-0.174	-0.010
Self-efficacy scale	3.1 (0.5)	0.000	0.172	0.162
Ways of Coping Checklist (WCC)				
Problem-focused coping	27.0 (4.0)	0.131	0.192°	0.008
Emotional-focused coping	21.8 (4.1)	0.291**	0.068	0.177
Social support-focused coping	22.9 (3.6)	0.192°	0.295**	-0.055
Communication skills				
Assessment skills	28.0 (12.0)	0.146	0.107	0.189°
Information skills	62.1 (24.5)	0.092	-0.042	0.038
Supportive skills	25.4 (16.6)	0.078	0.194°	-0.080
Changes²				
Stress to communicate scale	-7 (22.2)	-0.130	0.092	0.008
Self-efficacy scale	0.2 (0.5)	0.033	-0.100	-0.097
Ways of Coping Checklist (WCC)				
Problem-focused coping	1.6 (3.7)	0.015	-0.165	0.195°
Emotional-focused coping	-0.5 (3.5)	-0.069	-0.048	-0.291**
Social support-focused coping	0.4 (3.4)	-0.060	-0.356**	0.140
Communication skills				
Assessment skills	2.6 (16.7)	-0.029	-0.002	-0.162
Information skills	-10.5 (26.7)	-0.129	-0.144	-0.019
Supportive skills	0.1 (14.8)	0.061	-0.019	-0.102

°p ≤ .10 *p ≤ .05 **p ≤ .01 ***p ≤ .001

¹Computed through Spearman Correlation or t-tests for independent sample or oneway Anova as appropriate.

²Computed through the difference between residents' scores at baseline and 8 months later.

Table 3. Influence of Work-Related Variables on Changes in Residents' Burnout Level (n = 79)

	Descriptive	Association ¹ with Changes ²		
	Analysis	in Burnout Level		
	Mean (SD)	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Baseline				
Job Sress Survey				
Job pressure index	36.8 (11.8)	-0.009	0.020	0.078
Lack of organizational support index	26.0 (12.6)	-0.095	-0.150	0.151
Job stress index	86.7 (29.4)	-0.022	-0.094	0.115
Quality of Work Life Systemic Inventory ³				
Compensation and benefits	6.0 (4.5)	0.149	-0.135	0.097
Arrangement of work schedule	9.1 (6.4)	-0.153	-0.033	-0.022
Atmosphere with colleagues	3.2 (4.2)	-0.190°	-0.156	0.113
Atmosphere with superiors	6.7 (5.1)	-0.018	-0.105	0.116
Characteristics of physical environment	6.0 (7.5)	-0.140	-0.155	-0.170
Factors influencing appreciation of tasks	5.2 (3.1)	0.010	-0.046	0.008
Global (QWLSI)	6.1 (3.2)	-0.139	-0.122	0.052
Changes²				
Job Sress Survey (JSS)				
Job pressure index	0.2 (10.9)	0.144	-0.056	-0.090
Lack of organizational support index	0.4 (13.2)	0.339**	0.087	-0.142
Job stress index	1.0 (26.5)	0.312**	0.103	-0.164
Quality of Work Life Systemic Inventory ³				
Compensation and benefits	1.6 (5.1)	-0.148	0.181	0.029
Arrangement of work schedule	-1.0 (7.4)	0.132	0.079	0.028
Atmosphere with colleagues	1.2 (17.1)	0.271*	0.049	-0.198°
Atmosphere with superiors	0 (6.3)	0.084	0.055	-0.153
Characteristics of physical environment	1.4 (7.7)	0.108	0.138	-0.010
Factors influencing appreciation of tasks	-0.2 (3.1)	0.202°	-0.088	0.009
Global (QWLSI)	0.1 (3.4)	0.218°	0.097	-0.062

°p ≤ .10 *p ≤ .05 **p ≤ .01 ***p ≤ .001

¹Computed through Spearman Correlation or t-tests for independent sample or oneway Anova as appropriate.

²Computed through the difference between residents' scores at baseline and 8 months later.

³Two QWLSI subscales (career path and support offered to employee) were not reported due to an insufficient response rate (n=23).

Supplementary variables were entered in the regression analyses given that they satisfied the inclusion criterions ($p < .10$). Social support-focused coping at baseline ($p = .090$), quality of work life concerning atmosphere with colleagues at baseline ($p = .094$) and changes in global quality of work life ($p = .054$) and in quality of work life concerning factors influencing appreciation of tasks ($p = .077$) were added in the emotional exhaustion regression analysis. Work experience ($p = .070$), problem-focused

coping ($p=.090$), and the use of supportive skills ($p=.087$) at baseline were added in the depersonalization regression analysis. GHQ at baseline ($p=.069$), the use of assessment skills at baseline ($p=.095$), changes in problem-focused coping ($p=.085$) and in quality of work life concerning atmosphere with colleagues ($p=.081$) were added in the personal accomplishment regression analysis.

As shown in Table 4, three models of regression have been tested. Person- and work-related variables explained 46% of the variance in changes in emotional exhaustion level, 27% of the variance in changes in personal accomplishment level and 14% of the variance in changes in depersonalization level. Given that only 14% of the variance in changes in depersonalization level could be explained by variables, these results were not reported.

Changes in emotional exhaustion and personal accomplishment levels were explained by both person- and work-related variables. Concerning person-related variables, changes in residents' emotional exhaustion level were significantly predicted by LOC ($b=.574$; $p=.006$), by stress to communicate ($b=.067$; $p=.029$) and by emotional-focused coping ($b=.353$; $p=.040$) at baseline and associated with changes in STAI-T ($b=.489$; $p<.001$). Changes in residents' personal accomplishment level were significantly predicted by work experience ($b=.759$; $p=.019$) and by the use of assessment skills ($b=.091$; $p=.024$) at baseline, and significantly associated with changes in emotional-focused coping ($b=-.311$; $p=.021$). Concerning work-related variables, changes in residents' emotional exhaustion were significantly associated with changes in lack of organizational support index ($b=.176$; $p=.001$). Changes in residents' personal accomplishment were significantly associated with changes in quality of work life concerning atmosphere with colleagues ($b=-.056$; $p=.043$) (Table 4).

Table 4. Predictors and Correlates of Changes in Residents' Burnout (Stepwise Multiple Regression Analysis)

	Changes in Residents' Burnout Level ¹ (n = 79)								
	Emotional Exhaustion			Depersonalization			Personal Accomplishment		
	b	β	p	b	β	p	b	B	p
Person-related variables									
Socioprofessional variables									
Predictors									
Work experience (in years)	-	-	-	-.149	-	.172	.759	.244	.019
Psychological variables									
Predictors									
General Health Questionnaire (GHQ)	-	-	-	-	-	-	-.148	-	.166
Rotter I-E Scale (LOC)	.574	.247	.006	-	-	-	-	-	-
Correlates¹									
General Health Questionnaire (GHQ)	.088	-	.364	-	-	-	-	-	-
State-Trait Anxiety Inventory-Trait (STAI-T)	.489	.397	<.001	-	-	-	-	-	-
Rotter I-E (LOC)	-	-	-	-	-	-	-.254	-.182	.084
Communication variables									
Predictors									
Stress to communicate scale	.067	.212	.029	-	-	-	-	-	-
Ways of Coping Checklist (WCC)									
Problem-focused coping	-	-	-	.113	-	.341	-	-	-
Emotional-focused coping	.353	.198	.040	-	-	-	-	-	-
Social support-focused coping	.101	-	.274	.168	-	.177	-	-	-
Communication skills									
Assessment skills	-	-	-	-	-	-	.091	.239	.024
Supportive skills	-	-	-	.059	.237	.029	-	-	-
Correlates¹									
Ways of Coping Checklist (WCC)									
Problem-focused coping	-	-	-	-	-	-	.062	-	.563
Emotional-focused coping	-	-	-	-	-	-	-.311	-.240	.021
Social support-focused coping	-	-	-	-.379	-.309	.005	-	-	-
Work-related variables									
Predictors									
Quality of Work Life Systemic Inventory									
Atmosphere with colleagues	.052	-	.573	-	-	-	-	-	-
Correlates¹									
Job Stress Survey (JSS)									
Lack of organizational support index	.176	.320	.001	-	-	-	-	-	-
Job stress index	.150	-	.362	-	-	-	-	-	-
Quality of Work Life Systemic Inventory									
Atmosphere with colleagues	.026	-	.788	-	-	-	-.056	-.210	.043
Factors influencing appreciation of tasks	.123	-	.176	-	-	-	-	-	-
Global (QWLSI)	-.015	-	.873	-	-	-	-	-	-
Constant	-19.1		<.001	-.982		.225	-3.91		.014
Multiple R		.674			.375			.520	
% of variance explained (R²)		.455			.141			.271	
F (p)		12.02 (<.001)			6.24 (.003)			5.42 (<.001)	

¹Computed through a difference between residents' scores at baseline and 8 months later.
Abbreviations: LOC, Locus of Control.

4. Discussion

The aim of this study was to identify predictors and correlates - person- and work-related variables - of changes in residents' burnout level. Three models of regression have been tested. Person- and work-related variables which have been selected for this study explain 46% of the variance in changes in emotional exhaustion level, 27% of the variance in changes in personal accomplishment level and 14% of the variance in changes in depersonalization level. Given that only 14% of the variance in changes in depersonalization level can be explained by selected variables, the discussion will only focus on the first two models. The discussion will focus first on person-related (socioprofessional, psychological and communicational) and secondly on work-related variables which predict or are associated with changes in emotional exhaustion and personal accomplishment levels.

It must be recalled that nearly 50% of residents at baseline have high emotional exhaustion or depersonalization levels. High scores in emotional exhaustion or depersonalization have been considered indicative of clinically significant burnout [34]. Burnout prevention seems thus really necessary if these two dimensions are considered as the two first phases of burnout development [35-37]. It must also be underlined that residents' emotional exhaustion level decreases weakly over time while their depersonalization and personal accomplishment levels remain stable over time.

Among person-related variables, a shorter work experience at baseline predicts a more important decrease in personal accomplishment level. This confirms a study reporting that first-year residents have significantly higher burnout level than older residents [6]. This result indicates the need to organize interventions designed to reduce residents' burnout level during the first year of residency.

As regards psychological variables, an external locus of control (LOC) (referring to a generalized belief regarding the extent to which life outcomes are controlled by external forces such as luck [20]) at baseline predicts an increase in emotional exhaustion level. This confirms a study reporting a significant association between an external LOC and high burnout level in another population [38]. Usually subjects with external LOC cope less effectively with stress [39]. This lower coping efficiency may have contributed to the increase in burnout level found in this study. Moreover, an increase in trait anxiety (referring to a tendency to respond with anxiety in the anticipation of stressful situations and to be intolerant to uncertainty [18]) is

associated with an increase in emotional exhaustion level. This confirms a study reporting a significant association between a high trait anxiety and high burnout level [40]. These results indicate the need to implement person-directed interventions aimed to enhance residents' stress management skills. Moreover, the rather high baseline level of trait anxiety has to be underlined among these young physicians. This could suggest that this is more a measure of state (unstable) anxiety for these residents who have to face uncertainty daily in their job.

Among communicational variables, several results should be highlighted. First, high perceived stress to communicate with patients in interview at baseline predicts an increase in emotional exhaustion level. Second, the rare use of facilitative assessment skills at baseline (i.e. open-directed questions facilitating patients' disclosure) predicts a decrease in their personal accomplishment level. Third, high emotional-focused coping level in interview at baseline (referring to a tendency to cope with stress in interview in a passive way) predicts an increase in emotional exhaustion level. Fourth, an increase in this coping level over time in interview is associated with a decrease in personal accomplishment level. These results indicate the need to implement person-directed interventions aimed to enhance residents' communication skills.

Among work-related variables, there are no significant predictors of changes. There are however some correlates of these changes. First, the deterioration in organizational support (i.e. supervisor support, participation in decision-making) is associated with an increase in emotional exhaustion level. Second, the deterioration in quality of work life concerning atmosphere with colleagues (i.e. role conflict) is associated with a decrease in personal accomplishment level. More links between these variables (job demands and job resources) and changes in residents' burnout level would be expected [41-43]. These results suggest the need to further explore whether some person-related variables (i.e. good coping strategies, LOC, level of engagement of these residents in their job) could moderate the effect of these organization-related variables on burnout changes. These results also indicate the need to implement organization-directed interventions aimed to better define residents' role, to ensure their supervision, to increase their participation in decision-making and to promote multidisciplinary team working.

To conclude, this study shows that person- and work-variables influence changes in residents' burnout level. This may indicate that programs designed to reduce residents' burnout level should combine person- and work-directed interventions.

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DISCUSSION GENERALE

Discussion

Le premier objectif de ce travail de thèse se divisait en deux parties. La première partie visait à tester l'impact de deux programmes de formation à la communication (un programme de formation de base et un programme de formation de base suivi d'ateliers de consolidation) sur le niveau de burnout de médecins spécialistes en oncologie. La seconde visait à identifier, parmi des variables relatives à la personne et au travail, les prédicteurs et corrélats associés aux changements dans le niveau de burnout de ces médecins.

Première partie

Les résultats de cette étude n'ont pas mis en évidence que ces deux programmes de formation à la communication permettent de réduire le niveau de burnout des médecins spécialistes en oncologie testés dans cette étude. Plusieurs hypothèses ont été émises pour tenter d'expliquer l'absence d'impact de ce programme de formation à ce niveau.

L'absence d'impact pourrait d'abord s'expliquer par le fait que peu de médecins dans notre échantillon ont un niveau élevé de burnout au départ. Le niveau d'engagement nécessaire dans ce type de profession pourrait expliquer ce faible niveau de burnout. L'engagement est considéré comme un état d'esprit épanouissant relatif au travail indépendant et négativement corrélé avec le burnout, caractérisé par de l'enthousiasme, du dévouement et le fait d'être complètement absorbé dans son travail [1-3]. Il y aurait un biais de sélection au départ. Ce programme de formation pourrait être plus efficace auprès de médecins ayant un niveau de burnout plus élevé.

Ensuite, l'impact positif attendu au niveau du burnout pourrait être observé après plusieurs mois d'application des nouvelles stratégies de communication dans la pratique clinique. En effet, le syndrome de burnout touche le fonctionnement général de la personne. Les recherches actuelles soutiennent l'idée que le burnout peut être conceptualisé comme un processus développemental complexe où les relations causales entre ses trois dimensions principales ne sont pas encore clairement établies [4]. Un changement à ce niveau demande sans doute un certain temps de maturation.

Enfin, l'absence d'impact de ce programme de formation pourrait s'expliquer par le fait qu'augmenter l'utilisation de stratégies de communication efficaces n'est pas suffisant pour réduire le niveau de burnout des médecins. La problématique du burnout ne s'expliquerait pas uniquement par des difficultés au niveau de la communication avec les patients. D'autres variables relatives à la personne (ex. style d'adaptation face au stress) et au travail (ex. exigences professionnelles) devraient être prises en compte dans les programmes d'intervention pour conduire à de meilleurs résultats [5, 6].

Seconde partie

L'analyse des prédicteurs et corrélats associés aux changements dans les niveaux d'épuisement émotionnel, de dépersonnalisation et d'accomplissement personnel a mis en évidence des pistes de réflexion pour le développement de nouveaux programmes d'intervention visant à réduire le burnout des médecins.

Cette analyse a montré une faible association entre les changements dans le niveau de dépersonnalisation et les variables testées dans notre étude. Il est en effet étonnant de ne pas trouver d'association avec les ressources professionnelles (mesurées au moyen du Job Stress Survey) comme c'est le cas dans d'autres études [7]. Ces résultats pourraient s'expliquer soit par le fait que le niveau de dépersonnalisation des médecins testés est particulièrement faible dans notre échantillon, soit par le fait que dans notre échantillon, la dépersonnalisation pourrait dépendre davantage d'autres variables liées à la personnalité des médecins non mesurées dans cette étude (ex. le neuroticisme) [8, 9].

Cette analyse a également montré que les changements dans les niveaux d'épuisement émotionnel et d'accomplissement personnel sont associés à certaines variables relatives à la personne (stratégies de communication) et relatives au travail (charge de travail clinique mesurée par le nombre de patients vus en consultation la dernière semaine) (Figure 1).

Les résultats concernant les variables relatives à la personne ont mis en évidence que l'utilisation excessive de stratégies de communication facilitatrices apprises en formation peut avoir un effet négatif sur le niveau d'accomplissement personnel des médecins. Cet effet négatif peut s'expliquer par le fait que le programme de formation a pu fragiliser certaines croyances des médecins construites par des années de pratique concernant la façon de communiquer avec leurs patients. Cet effet négatif peut également s'expliquer par le fait que l'utilisation de ces stratégies de

communication a conduit à une augmentation du niveau émotionnel des consultations qui peut être difficile à gérer pour certains médecins. Une étude récente a d'ailleurs montré que des médecins qui dissimulaient l'information dans le cadre de l'annonce d'un diagnostic de cancer par rapport à d'autres qui la divulguaient avaient un stress plus faible au niveau psychologique et physiologique [10]. Il semble que notre formation ait appris aux médecins à clarifier les préoccupations des patients. Cependant, ils ont encore besoin de formations supplémentaires pour gérer l'état émotionnel des patients et en même temps poursuivre leur agenda professionnel dans un contexte de charge de travail importante.

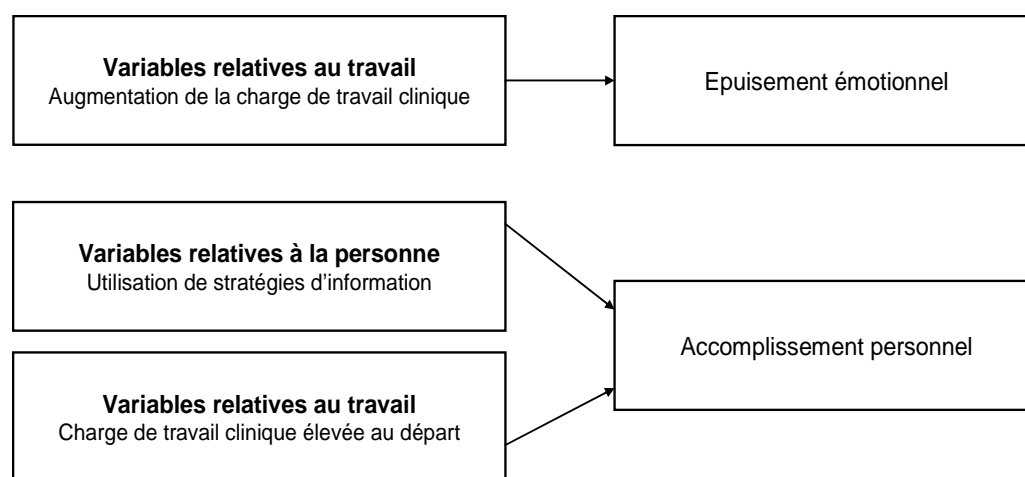


Figure 1. Prédicteurs et corrélats associés aux changements dans les niveaux d'épuisement émotionnel et d'accomplissement personnel de médecins spécialistes en oncologie suite à deux formations à la communication.

Les résultats concernant les variables relatives au travail ont d'abord montré une association entre l'augmentation de la charge de travail clinique et l'augmentation de l'épuisement émotionnel confirmant ainsi les résultats d'autres études [11, 12]. Les exigences professionnelles telles que la surcharge de travail sont de façon générale positivement associées à la composante d'épuisement du burnout [7]. Ensuite, ces résultats ont mis en évidence une association entre une charge de travail clinique importante au départ et une augmentation de l'accomplissement personnel des médecins après les formations. A nouveau, nous pouvons faire l'hypothèse que ces

médecins sont particulièrement engagés dans leur profession. Ils seraient donc très motivés à apprendre des stratégies qui pourraient les aider à être plus efficaces lors de leurs nombreuses consultations, induisant ainsi une augmentation de leur sentiment d'accomplissement personnel.

Pour conclure, notre programme de formation à la communication n'a pas permis de réduire le niveau de burnout des médecins spécialistes en oncologie testés dans l'étude. Les analyses montrent que les changements au niveau de l'épuisement émotionnel et de l'accomplissement personnel sont associés différemment à certaines variables individuelles (stratégies de communication) et professionnelles (exigences professionnelles). Les programmes de formation visant à réduire le niveau de burnout des médecins spécialistes en oncologie devraient tenir compte de l'implication de ces deux types de variables. De plus, les interventions dans cette population pourraient gagner à être structurées en termes de construction de l'engagement professionnel plutôt que de réduction du niveau de burnout (relativement peu élevé en l'occurrence).

Le second objectif de notre travail de thèse se divisait en trois parties. D'abord, il s'agissait de décrire les fondements théoriques, principes et techniques d'un programme d'intervention combinant une formation à la communication et une formation à la gestion du stress. Ensuite, il s'agissait de tester l'impact de ce programme d'intervention sur le stress de communiquer en consultation avec un patient cancéreux, le sentiment d'efficacité personnelle concernant la communication et la gestion du stress en consultation avec un patient cancéreux et le niveau de burnout de médecins candidats-spécialistes. Enfin, il s'agissait d'identifier, parmi des variables relatives à la personne et au travail, les prédicteurs et corrélats associés aux changements du niveau de burnout de ces médecins candidats-spécialistes.

Première partie

Aucun programme d'intervention n'avait précédemment proposé l'intégration d'une formation à la communication et à la gestion du stress pour diminuer le niveau de burnout des médecins. Notre programme d'intervention centré sur la personne incluait des approches cognitive, comportementale et affective. L'approche cognitive visait à améliorer les connaissances des médecins concernant les stratégies de communication et de gestion du stress efficaces. L'approche comportementale visait à pratiquer ces stratégies appropriées au travers d'exercices et de jeux de rôle afin d'améliorer leur maîtrise et de tester leurs conséquences. Enfin, l'approche affective visait à permettre aux médecins d'exprimer les attitudes et sentiments relatifs à la communication avec les patients cancéreux et leurs proches.

Deuxième partie

Cette étude a mis en évidence des résultats positifs à deux niveaux. D'une part, ce programme d'intervention combinant une formation à la communication et à la gestion du stress a permis de réduire le stress de communiquer en consultation de médecins candidats-spécialistes. Ce résultat peut s'expliquer par l'acquisition de stratégies de communication facilitatrices et de stratégies de gestion du stress de type cognitivo-comportemental (relaxation, restructuration cognitive et gestion du temps) enseignées lors de la formation. D'autre part, ce programme a permis d'améliorer leur sentiment d'efficacité personnelle concernant la communication et la gestion du stress en consultation. Cette amélioration peut s'expliquer par la méthode d'apprentissage utilisée dans notre programme d'intervention. L'apprentissage par l'expérience

utilisant des jeux de rôle réunirait les quatre déterminants du sentiment d'efficacité personnelle identifiés par Bandura [13, 14]: les performances antérieures (le fait d'avoir maîtrisé une tâche et de l'avoir réussie augmente le sentiment d'efficacité personnelle), les expériences vicariantes (le fait de voir ses semblables réussir ce qu'ils entreprennent accroît le sentiment d'efficacité personnelle), la persuasion verbale (convaincre la personne qu'elle possède les capacités requises pour résoudre avec succès une tâche particulière augmente le sentiment d'efficacité personnelle) et les réactions physiologiques ou émotives (ressentir un niveau d'activation émotionnelle adéquat lors de la tâche augmente le sentiment d'efficacité personnelle). Il serait intéressant d'évaluer si ces améliorations au niveau du stress et du sentiment d'efficacité personnelle en consultation ont eu un impact positif au niveau de la satisfaction des patients en consultation.

Cependant, le programme d'intervention n'a pas montré d'impact positif sur le niveau de burnout des médecins candidats-spécialistes testés dans cette étude. Comme suggéré précédemment, un impact positif pourrait être observé après plusieurs mois d'application des nouvelles stratégies dans la pratique clinique. De plus, l'absence d'impact pourrait s'expliquer à nouveau par le fait que le programme d'intervention centré sur la personne combinant une formation à la gestion du stress et à la communication ne serait pas suffisant pour réduire le niveau de burnout. Des programmes d'intervention centrés sur le travail tenant compte des exigences professionnelles (ex. surcharge de travail) et du manque de ressources (ex. peu de participation à la prise de décisions, manque de supervision) rencontrés par les médecins candidats-spécialistes semblent nécessaires [5]. Enfin, l'absence d'impact positif peut renvoyer à la pertinence de l'outil de mesure du burnout dans cette population. En effet, le niveau de burnout mesuré par le Maslach Burnout Inventory (MBI) est élevé chez ces jeunes médecins. Or, le burnout se définit comme le résultat d'une longue exposition à des stressseurs chroniques au travail [15]. Dans cette étude, le MBI évaluerait davantage le stress relatif à la surcharge de travail ou à l'adaptation à un nouveau travail. D'ailleurs, le niveau d'épuisement émotionnel diminue significativement dans le temps dans les deux groupes suggérant une adaptation au travail avec le temps.

Troisième partie

Tenant compte de l'absence d'impact du programme d'intervention sur le niveau de burnout des médecins candidats-spécialistes testés, des analyses ont été réalisées sur l'ensemble des médecins (ayant suivi ou non le programme d'intervention) afin

d'identifier les prédicteurs et corrélats des changements dans leur niveau de burnout et ainsi de donner des pistes pour le développement de programmes d'intervention plus efficaces pour cette population.

Ces analyses ont à nouveau montré une faible association entre les changements dans le niveau de dépersonnalisation et les variables testées dans notre étude. Comme suggéré précédemment, la dépersonnalisation pourrait dépendre d'autres variables liées à la personnalité des médecins (ex. neuroticisme) [8, 9]. Nous pouvons également nous demander si la dimension de dépersonnalisation ne renvoie pas davantage à un construit psychopathologique qui ne serait pas pertinent dans cette population. Il serait peut-être plus indiqué d'utiliser d'autres instruments tels que le Oldenburg Burnout Inventory (OLBI [16]) qui mesure l'épuisement et le désengagement (au lieu de la dépersonnalisation).

Ces analyses ont également mis en évidence que des variables relatives à la fois à la personne (socioprofessionnelles, psychologiques et communicationnelles) et au travail sont associées aux changements dans les niveaux d'épuisement émotionnel et d'accomplissement personnel (Figure 2).

Les résultats concernant les variables socioprofessionnelles ont indiqué l'importance de proposer des programmes d'intervention visant à réduire le burnout dès les premières années de spécialisation. En effet, ceux qui ont le moins d'expérience médicale au départ sont ceux qui diminuent le plus leur niveau d'accomplissement personnel avec le temps. La prévention précoce de ce phénomène semble importante.

Ensuite, les résultats concernant les variables psychologiques ont montré l'implication de deux de ces variables -le vécu subjectif de contrôle externe et l'augmentation de l'anxiété trait- dans le développement de l'épuisement émotionnel des médecins candidats-spécialistes. Ces caractéristiques psychologiques impliquent en général une mauvaise adaptation face aux situations de stress. Ces résultats ont indiqué la nécessité d'implanter des interventions centrées sur la personne visant à améliorer les stratégies de gestion du stress pour diminuer le burnout des médecins candidats-spécialistes. De plus, il est important de souligner le niveau relativement élevé d'anxiété-trait au départ chez ces jeunes médecins. L'anxiété-trait fait référence à une tendance générale à répondre de façon anxieuse dans l'anticipation des situations de stress et à une intolérance à l'incertitude [17]. Or, la confrontation à la gestion de l'incertitude concernant le diagnostic, le traitement ou le pronostic des patients est quotidienne parmi les candidats spécialistes. L'anxiété-trait mesurée dans notre échantillon serait donc plus proche d'une anxiété-état. Elle serait adaptative et

inhérente à la profession. Les programmes d'intervention devraient également en tenir compte pour diminuer le burnout.

Concernant les variables communicationnelles, les résultats ont montré que plusieurs variables de ce type (un stress élevé de communiquer en consultation, l'utilisation peu fréquente de stratégies de communication facilitatrices en consultation, un coping élevé centré sur les émotions en consultation) sont associées à un accroissement du niveau de burnout des médecins candidats-spécialistes, soit en augmentant l'épuisement émotionnel, soit en diminuant l'accomplissement personnel. Ces résultats ont indiqué l'intérêt d'implanter des interventions visant à améliorer les stratégies de communication pour réduire le niveau de burnout. Cependant, nous devons rappeler que nos résultats précédents soulignent également que ces interventions centrées sur la communication ne sont pas suffisantes pour diminuer le burnout. Elles doivent sans doute être combinées à d'autres types d'intervention.

D'autre part, les résultats concernant les variables relatives au travail ont mis en évidence qu'une détérioration du soutien organisationnel est associée à une augmentation de l'épuisement émotionnel et qu'une détérioration de l'atmosphère avec les collègues est associée à une diminution de l'accomplissement personnel. Ces données ont indiqué l'utilité d'implanter des interventions visant à développer les ressources professionnelles des médecins candidats-spécialistes telles qu'une meilleure définition des rôles, une meilleure supervision, et une augmentation de leur participation à la prise de décisions pour diminuer le burnout. Cependant, davantage de liens entre les variables relatives au travail (exigences et ressources professionnelles) et les changements dans les niveaux de burnout auraient été attendus étant donné la littérature dans ce domaine [5, 7, 18]. Cela peut suggérer la présence d'un effet modérateur de certaines variables relatives à la personne (ex. l'utilisation de stratégies de coping adéquates, un vécu subjectif de contrôle interne, un niveau d'engagement élevé dans le travail) qui diminuerait l'impact négatif des contraintes organisationnelles sur le burnout. En effet, les scores aux questionnaires organisationnels (Job Stress Survey et Inventaire Systémique de Qualité de Vie au Travail) indiquent que ces jeunes médecins sont confrontés à des exigences de travail élevées accompagnées de ressources limitées.

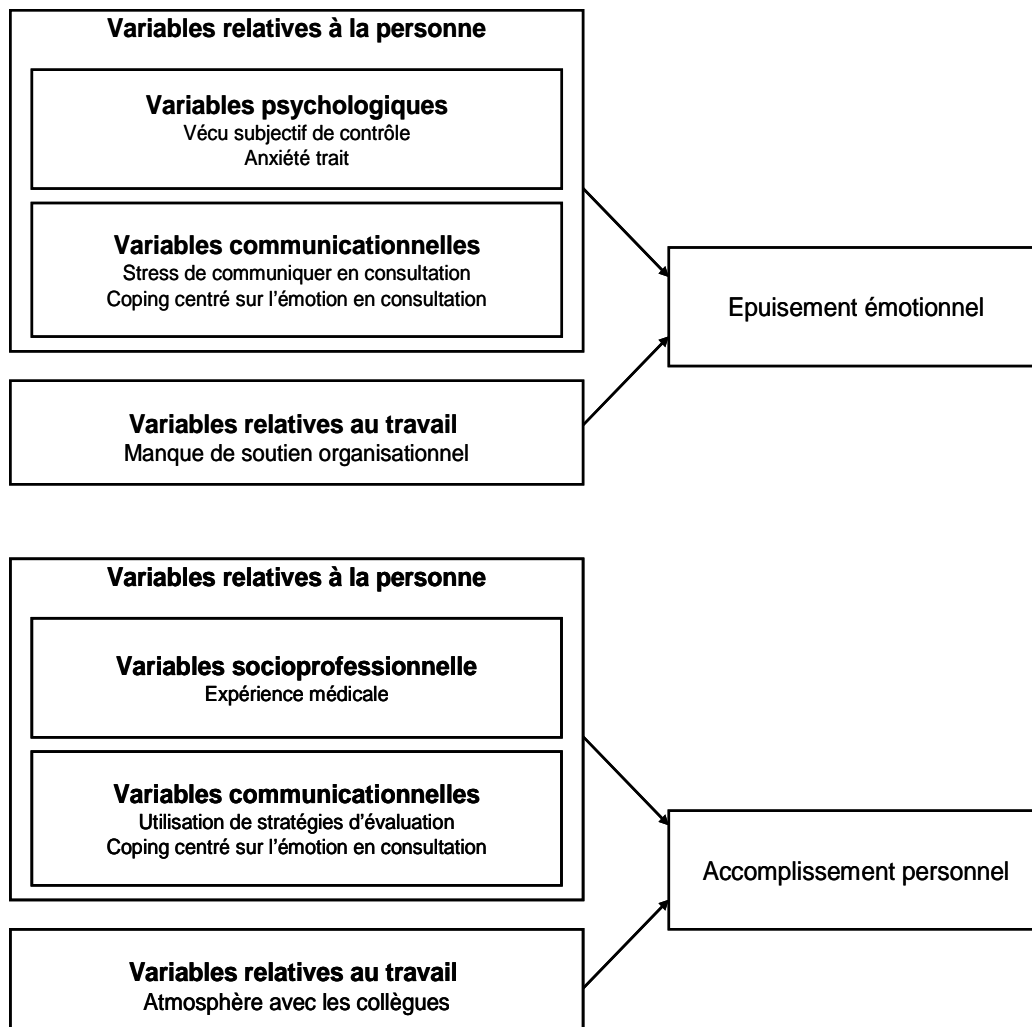


Figure 2. Prédicteurs et corrélats associés aux changements dans les niveaux d'épuisement émotionnel et d'accomplissement personnel de médecins candidats-spécialistes (8 mois d'intervalle).

Pour conclure, alors que le programme d'intervention a permis de réduire le stress de communiquer et d'améliorer le sentiment d'efficacité personnelle concernant la communication et la gestion du stress en consultation des médecins candidats-spécialistes, il n'a pas permis de diminuer leur niveau de burnout. Les programmes d'intervention visant à réduire le niveau de burnout devraient combiner des interventions centrées sur la personne et sur le travail en tenant compte de l'ensemble des variables socioprofessionnelles, psychologiques, communicationnelles et organisationnelles. Il serait intéressant de tester un modèle plus sophistiqué incluant ces différentes variables afin d'explorer les éventuels effets modérateurs de certaines variables sur d'autres. Enfin, les résultats positifs de notre programme devraient encourager son organisation obligatoire et relativement tôt dans la formation des médecins. Il paraît important de déplorer à ce niveau qu'en Belgique, la place accordée à la communication avec les patients dans la formation professionnelle des médecins reste limitée. L'Arrêté ministériel fixant les critères généraux d'agrégation des médecins spécialistes, des maîtres de stage et des services de stage modifié par l'Arrêté ministériel du 1er mars 2003 stipule pourtant qu'au moment de l'agrément, le candidat spécialiste doit pouvoir fournir la preuve qu'il a suivi une formation de 30 heures minimum dans le domaine de la communication avec les patients. Dans les faits, peu de médecins peuvent prétendre avoir réellement reçu ce type d'enseignement.

Conclusions et perspectives

Ce travail de thèse avait deux objectifs. Le premier objectif visait à tester l'impact d'un programme de formation à la communication sur le niveau de burnout de médecins spécialistes en oncologie et d'identifier les prédicteurs et corrélats associés aux changements dans leur niveau de burnout. Le second objectif visait à tester l'impact d'un programme de formation à la communication et à la gestion du stress sur le stress de communiquer, le sentiment d'efficacité personnelle et le niveau de burnout de médecins candidats-spécialistes et d'identifier les prédicteurs et corrélats associés aux changements dans leur niveau de burnout.

Les résultats de ce travail ont des implications à plusieurs niveaux : clinique, méthodologique, pédagogique et théorique.

Au niveau **clinique**, il serait intéressant d'évaluer si les améliorations observées au niveau du stress de communiquer et du sentiment d'efficacité personnelle en consultation des médecins candidats-spécialistes ont eu un impact positif au niveau de la satisfaction des patients en consultation. L'objectif de ces interventions est en effet également d'améliorer le bien-être des patients.

Au niveau **méthodologique**, les résultats montrent d'abord les limites d'une participation volontaire à ce type d'intervention impliquant l'inclusion de médecins très motivés. Ceci explique sans doute le petit nombre de participants. Ce type d'intervention gagnerait à être implanté pendant la formation médicale ou sur le lieu de travail.

Les résultats soulèvent des questions au niveau de l'évaluation du burnout auprès des médecins spécialistes. Leur niveau de burnout au départ n'est pas très élevé. Cela peut s'expliquer par un biais de sélection lié à la profession. Ce sont des personnes qui doivent faire face à de nombreuses contraintes professionnelles tout en étant très engagées dans leur travail. Cet engagement serait une protection contre le développement du burnout dans cette population. Il paraît utile d'utiliser d'autres outils qui permettraient de mesurer l'efficacité des interventions auprès des médecins au niveau de leur engagement professionnel, considéré comme le versant positif du burnout. Le Utrecht Work Engagement Scale [1, 2] pourrait dans ce cadre se révéler intéressant.

Au niveau **pédagogique**, les résultats montrent les limites des programmes d'intervention centrés sur la personne visant à réduire le niveau de burnout des médecins et tracent les lignes directrices de programmes d'intervention futurs.

Ces résultats soulignent d'abord l'importance d'adapter le contenu des programmes d'intervention au niveau de burnout des participants. Ce niveau était relativement élevé chez les jeunes médecins. En effet, bien que seulement 9% avaient en même temps des niveaux élevés d'épuisement émotionnel et de dépersonnalisation et un niveau faible d'accomplissement personnel, près de la moitié des médecins candidats-spécialistes présentait au départ soit un niveau d'épuisement émotionnel élevé, soit un niveau de dépersonnalisation élevé. Ces résultats indiquent l'importance de la prévention du burnout afin que ces jeunes médecins ne se détériorent pas davantage au niveau du burnout et la nécessité de programmes de remédiation plus individualisés pour les 9% qui remplissent les trois critères. Par contre, au niveau des médecins spécialistes, les interventions pourraient gagner à être structurées en terme de construction de l'engagement professionnel plutôt que de réduction du niveau de burnout, vu le niveau faible de burnout dans cette population au départ.

D'autre part, le contenu devrait tenir compte de l'analyse des prédicteurs et corrélats qui a montré l'implication de variables différentes dans les changements de niveau d'épuisement émotionnel et d'accomplissement personnel des médecins candidats-spécialistes et spécialistes. Concernant les médecins candidats-spécialistes, le contenu des interventions devrait être centré à la fois sur la personne et sur le travail. Au niveau de la personne, le contenu impliquerait l'amélioration de la tolérance à l'incertitude et l'apprentissage de stratégies de gestion du stress et de communication avec les patients et leur famille. Au niveau du travail, le contenu devrait concerner davantage le développement des ressources professionnelles (ex. définition des rôles, qualité de la supervision). Concernant les médecins spécialistes en oncologie, le contenu devrait également combiner des interventions relatives à la personne et au travail. En particulier, il devrait être centré sur le développement de certaines stratégies de communication afin de mieux gérer l'état émotionnel des patients et aider à gérer les exigences professionnelles importantes.

L'analyse des prédicteurs et corrélats a également montré l'absence de lien entre les différentes variables testées et les changements du niveau de dépersonnalisation dans les deux populations. Parmi les perspectives à envisager, il serait intéressant de tester d'autres variables relatives à la personnalité du médecin afin de déterminer le contenu d'une intervention qui permettrait d'avoir un impact sur cette dimension du burnout. Il serait également intéressant de se demander si la dimension de

dépersonnalisation ne renvoie pas à un construit psychopathologique qui ne serait pas pertinent dans cette population. Dans ce cas, il serait peut-être plus indiqué d'utiliser d'autres instruments tels que le Oldenburg Burnout Inventory qui mesure l'épuisement et le désengagement (au lieu de la dépersonnalisation).

Ces résultats rappellent le fait que réduire le niveau de burnout des médecins est quelque chose de difficile, nécessitant un investissement en temps conséquent. Pour accroître l'impact des formations, il serait intéressant de les réaliser sous forme de supervisions sur le lieu de travail et de les organiser dès le début de la pratique médicale. Les niveaux de burnout particulièrement élevés en début de spécialisation devraient d'ailleurs encourager les facultés de médecine dans ce sens.

Au niveau **théorique**, les résultats de ce travail de thèse mettent en évidence l'importance de tenir compte des variables individuelles et organisationnelles pour comprendre le processus sous-jacent du burnout des médecins dans une perspective intégrative. Le burnout est un phénomène complexe et multi-causal. Ces résultats sont un encouragement à tester empiriquement un modèle incluant ces différentes variables en tant que prédicteurs du développement du burnout. Une tentative de modélisation adaptée du modèle Job Demands-Resources [5, 18] est présentée à la Figure 3. Ce modèle propose que les variables individuelles expliquent davantage le niveau de burnout des médecins que les variables professionnelles. Ces variables individuelles pourraient en fait modérer l'effet de l'impact des variables professionnelles sur le burnout des médecins. Au niveau des trois dimensions du burnout, nos résultats semblent indiquer une faible explication de la variance de la dépersonnalisation par rapport aux deux autres dimensions. Dans ce cadre, les perspectives seraient de tester le modèle en utilisant un autre questionnaire (OLBI) ou en ajoutant d'autres variables individuelles explicatives. Ce modèle propose également de tester les conséquences objectives que le burnout peut avoir au niveau de la santé des médecins (ex. risques cardio-vasculaires) et du bien-être des patients (ex. satisfaction en consultation). Par ailleurs, au lieu de se focaliser exclusivement sur les expériences professionnelles négatives, il serait intéressant d'inclure les expériences professionnelles positives, en intégrant le concept d'engagement professionnel, afin d'arriver à une image plus équilibrée du bien-être des médecins. Enfin, à côté des variables professionnelles et individuelles, de nouvelles perspectives de recherche suggèrent que le burnout pourrait être associé à un déficit de régulation de l'axe hypothalamo-pituitaire-adrénargique. En effet, des auteurs ont mis en évidence une relation entre le burnout et les niveaux de cortisol salivaire [19]. Les variables psychophysiologiques pourraient également être ajoutées dans ce modèle.

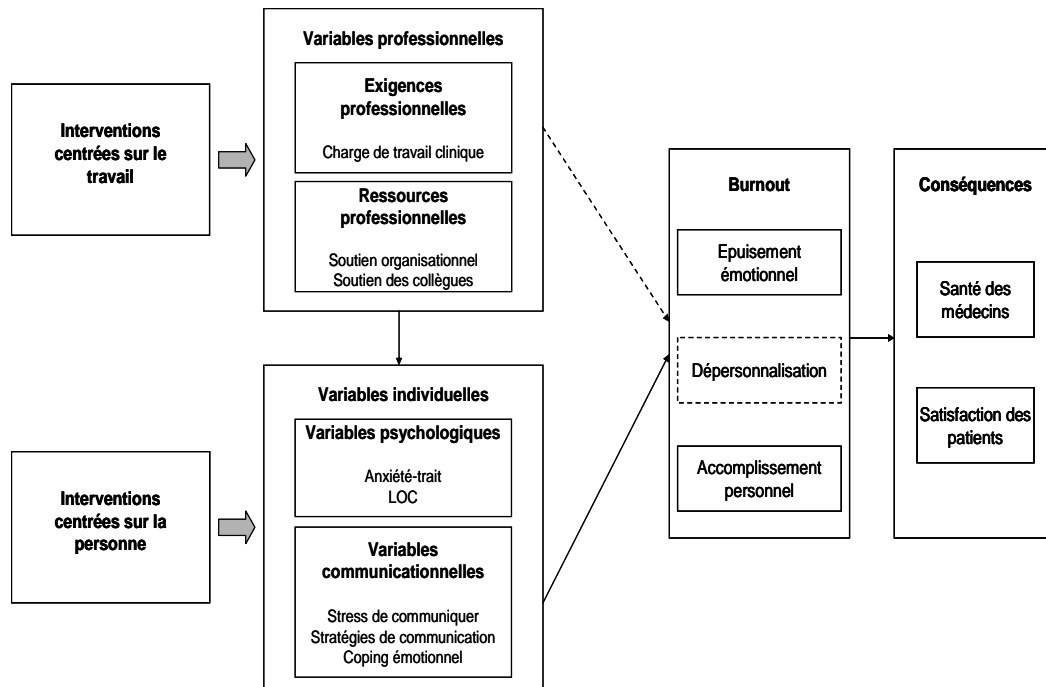


Figure 3. Adaptation du modèle Job Demands-Resources [5, 18].

Pour conclure, le syndrome de burnout est là aussi pour nous rappeler nos limites, nous faire prendre conscience que nous aussi soignants pouvons craquer, souffrir et baisser les bras. Il est là pour nous rappeler qu'il est essentiel de savoir prendre soin de soi et se ménager. Le développement des programmes d'intervention a pour objectif de préserver la qualité de vie au travail des médecins mais également d'optimiser la qualité des soins donnés aux patients. J'espère avec ce travail avoir pu faire prendre conscience que les médecins aussi doivent prendre soin d'eux s'ils veulent garantir les meilleurs soins à leurs patients.

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