

【ステーク・ホルダー論】

ステーク・ホルダー論は多様な利害関係者の存在を前提とした議論である。たばこ対策においても禁煙のみならず、暗黙裏に喫煙を容認する利害関係者に禁煙意識を波及させていくことも課題である。

現代のたばこ対策の中心は健康増進法やその他の医学的観点からのたばこ抑制策であり、消費サイドに重きが置かれている。需要を減退させれば自ずとたばこ製品のストリーム（原料調達から販売に至る流れ）を逆流する形で影響を及ぼすことが対策の一つに掲げられる。さらに付言すればステーク・ホルダー論としての総合的なたばこ対策、すなわちたばこに関わるすべての利害関係者に対する対策を提起したい。

H. 引用・参考文献

【著書・辞典・論文】

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村上了太「スウェーデン・マッチの民営化と経営戦略」沖縄国際大学商経学部『商経論争』
2003年、17-34 ページ。

【ウェブサイト】

スウェーデン国立公衆衛生研究所(www.fsi.se)

スウェーデン統計庁(www.scb.se)

スウェーデンたばこ関連サイト

(www.tobaksfakta.org)

スウィーディッシュ・マッチ

(www.swedishmatch.com)

スウィーディッシュ・クオリティ

(www.swedishquality.com)

システムボラーエ(www.systembolaget.se)

ファイアーブレイク(www.firerbreak.jp)

国際通貨基金(www.imf.org)

自動販売機工業会(www.jvma.or.jp)

I. 研究発表

【学会発表】

村上了太「たばこ企業の社会的責任：規制緩和時代における規制強化とステーク・ホルダー」
日本比較経営学会第32回全国大会(明治大学)、
2007年5月

【論文】

村上了太「たばこ企業の社会的責任への取り組みとその課題」日本比較経営学会『比較経営研究』第32号、2008年(印刷中)。

第1表 主要国のたばこ価格と喫煙率

地域名	国名	1人あたりGDP	価格(USD)	成人平均喫煙率 (%)	成人男性喫煙率 (%)	成人女性喫煙率 (%)
欧州	フランス	42,849	6.18	25.4	30.0	21.2
	ドイツ	41,581	5.18	32.5	37.3	28.0
	ロシア	10,468	1.50	35.1	60.4	15.5
	スウェーデン	49,090	5.64	17.5	16.7	18.3
	英国	48,072	9.37	26.0	27.0	25.0
中東・アフリカ	エジプト	1,995	1.25	28.8	45.4	12.1
	南アフリカ	6,185	2.65	15.5	23.2	7.7
	トルコ	6,877	2.86	31.2	49.4	17.6
北米	カナダ	45,844	7.26	20.0	22.0	17.0
	米国	46,820	4.41	21.6	24.1	19.2
南米	アルゼンチン	7,033	0.99	28.5	32.3	24.9
	ブラジル	7,557	1.04	N.A.	21.9	14.0
大洋州	オーストラリア	44,514	6.68	18.6	16.3	17.4
	ニュージーランド	30,234	7.28	N.A.	23.7	22.2
アジア	中国	2,798	2.23	N.A.	67.0	1.9
	韓国	20,749	2.48	34.75	64.9	4.4
	日本	35,651	2.87	29.6	46.9	14.5

注：1)1人あたりGDPは2008年推定値で、米国ドル表示、2)価格はマルボロ（または同等品）20本入り1箱あたりのドル価格。

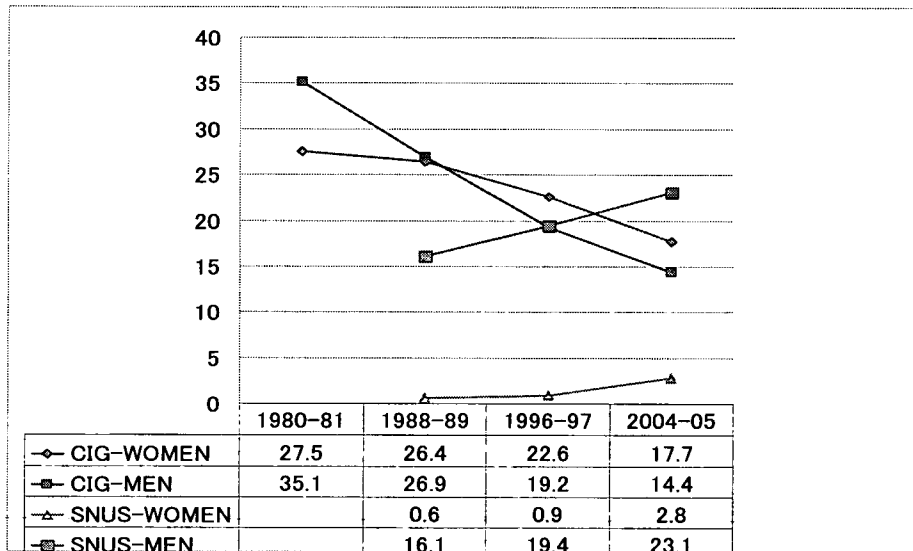
原典：American Cancer Society, The Tobacco Atlas Second Edition, 2006, pp.98-112. IMF database.

第2表 スヌースとニコレットの成分比較

	スヌース	ニコレット	ファイアーブレイク
主要成分	たばこ 70% 水分 20%	ニコチン 2mg	たばこ 1mg キシリトール
添加物他	プロピレン・グリコール 3% ソルビトール 1.4% アルコール化合物 天然・人工香料 0.2% 安息香酸性防腐剤 0.1%	イオン交換樹脂 炭酸水素トリウム 炭酸ナトリウム D-ソルビトール、グリセリン 炭酸カルシウム ジブチルヒドロキシトルエン I-メントール バニリン エタノール 香料 その他6成分	
規制法	たばこ事業法 未成年者喫煙禁止法	薬事法	たばこ事業法 未成年者喫煙禁止法 薬事法

出典：ニコレット (<http://www.nicorette-j.com>)ウェブサイト、スウィーディッシュ・マッチ (<http://www.swedishmatch.com>)ウェブサイト。

第3表 スウェーデンの製品別および性別の喫煙率（利用率）



注：縦軸は喫煙率もしくは利用率で%表示、横軸は年代である。

出典：スウェーデン統計庁(www.scb.se)ウェブサイト。

タバコ企業の社会的責任

—規制緩和時代における規制強化とステークホルダー—

村上正太(沖縄国際大学)

0. 報告目次

- 1. 問題の所在
- 2. 企業の社会的責任(CSR)
- 3. ステーク・ホルダー
- 4. 商品特性と責任転嫁
- 5. まとめ

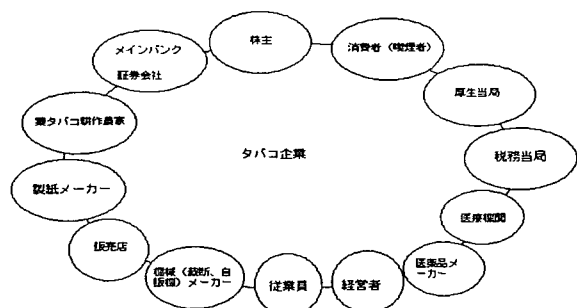
1. 問題の所在

- 健康促進法の施行による禁煙促進(日本)
- 世界的な規模での専売公社の民営化と国際的なM&Aの展開
- WHOによる禁煙策の拡充
- 標的にされるタバコと企業としての生存競争
- 規制を強める一方、企業として存続するタバコ会社
- 社会と企業:タバコの撲滅、存続、もしくは「協調」

3. ステーク・ホルダー

- 財政物資(税務当局、平均で税負担率は60%)。
- 有害商品(厚生当局、医療機関、医薬品メーカー)。
- 農業政策(葉タバコ耕作段階:族議員の介在)。
- 福祉政策(母子家庭、寡婦、障害者世帯:小売段階)。
- 独禁政策(国内でのタバコ製造はJTに限定)。
- 経営資源(自販機販売額は、1.8兆円、切符類1.7兆円を超える)。
- 再就職先(2007現在でも財務省の株式所有が50%)

3.1 タバコ企業のステーク・ホルダー



3.2 禁煙・嫌煙組織

- 医療機関
- 厚生当局(政府機関、WHOを含む)
- NPO(英米のASHなど)
- 間接喫煙者
- 医薬品メーカー(禁煙促進商品の販売)

3.3 タバコを暗示的に促進・維持する組織

- ・ 葉タバコ耕作農家(国内外)
- ・ 財務当局(国および地方たばこ税)
- ・ タバコ販売店
- ・ 自動販売機メーカー
- ・ 従業員
- ・ 製紙・セルロースメーカー

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3.4 福祉としてのタバコ

- ・ (参考)母子及び寡婦福祉法
- ・ 第二十五条 国又は地方公共団体の設置した事務所その他の公共的施設の管理者は、配偶者のない女子で現に児童を扶養しているもの又は母子福祉団体からの申請があつたときは、その公共的施設内において、新聞、雑誌、たばこ、事務用品、食料品その他の物品を販売し、又は理容業、美容業等の業務を行うために、売店又は理容所、美容所等の施設を設置することを許すように努めなければならない。
- ・ 第二十六条 配偶者のない女子で現に児童を扶養しているものがたばこ専業法(昭和五十九年法律第六十八号)第二十三条第一項の規定による小売販売業の許可を申請した場合において同法第二十三条各号の規定に該当しないときは、財務大臣は、その者に当該許可を与えるように努めなければならない。

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3.5 保護農政としてのタバコ

- ・ 全国たばこ耕作組合中央会(約1.4万人)
- ・ JTとの契約制度
- ・ 種子はJTが無料配布
- ・ 買い取り価格の審議会答申(族議員の介在)

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4. 社会的責任と対策

- ・ 世界のタバコ企業によるCSRの事例
- ・ 1)禁煙の拡大、分煙化
- ・ 2)嫌煙/禁煙団体との「対話」
- ・ 3)無煙タバコの開発
- ・ 4)葉タバコ耕作における児童労働の禁止
- ・ 5)清掃作業(吸い殻対策)

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タバコ各社のCSR活動(要旨)

アルトリア (米国、複合型) 1)フィリップ・モリスからの社名変更→イメージ戦略、2)社会的課題および環境報告書の作成と開示、3)葉タバコ耕作段階での児童労働の排除、4)事業会社によるサプライヤーの分散

B&T (英国、専業型) 1)未成年者の喫煙対策(YSP)、2)医療機関とのセッション開催、3)マンマーからの撤退(人権重視)、4)職場の分煙、5)清掃活動

JT (日本、複合型) 1)CSR推進室を設置、2)環境報告書を社会・環境報告書に拡充、3)国内葉タバコ耕作の廃業促進、4)欧州でのマイルド/ライトの使用抑制、5)医薬品、食料品、飲料などへの多角化、特に関連事業を通して厚生労働省と協働体制をとる、6)青少年育成のためのNPO助成

インベリアル・タバコ (英国、専業型) 1)CR活動(企業の責任)という位置づけ、2)新製品としての無煙タバコの拡充、3)児童労働の排除、4)内容、ニコチン・タール量を公開、5)分煙、吸い殻対策

アルタディス (フランス/スペイン、専業型) 1)社会/環境報告書の作成、2)葉タバコ耕作での児童労働の廃止、3)遺伝子組み換え葉タバコの使用禁止、4)含有物質の情報開示、5)企業市民としての活動、6)環境経営

スウィーディッシュ・マッチ (スウェーデン、専業型) 1)シガレット専業の売却(OTP、CRP戦略)、2)無煙タバコの拡充、3)児童労働の排除、4)安全な労働環境の提供、5)経歴や能力に応じた賃金の支払い

出所:各社のCSR報告書およびウェブサイトに基づいて筆者作成

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4. 商品特性と責任転嫁

- ・ 警告表示(健康被害)による注意喚起
- ・ →日本の場合、「吸い過ぎ」に注意とある。酒類でも同じ「飲み過ぎ」に注意とある。
- ・ →だが、個人によって「過ぎる」量は異なる。また健康被害を企業が訴えているにもかかわらず、商品を購入して消費するのは企業の責任といえるか否か。

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4.1 社会の圧力とタバコ企業の対応①

- 1954年: 米国でタバコと重大疾患には関係があると公表(テリーレポート)
- 同年: 米国タバコ会社が「健康に害はない」キャンペーン
- 1962年: 英国王立内科医学会が「喫煙と健康」報告書を刊行
- 1964年: 米国政府が「タバコは男性の発ガンの原因」と公式見解
- 1965年: 米国の全てのタバコ包装に健康被害の警告表示開始
- 1971年: 米国でテレビ・ラジオのタバコ広告禁止
- 1972年: 日本で「健康のため吸いすぎに注意しましょう」の表示
- 1976年: 新幹線こだまに禁煙車両が登場
- 1978年: 米国保健教育社会福祉省長官が「タバコは国民の敵ナンバーワン」と宣言
- 1982年: 米国公衆衛生局長が「喫煙は最も防ぎうる死因の主たるもの」と発言
- 同年: 米国科学アカデミーが「低タールタバコも健康上の影響は変わらない」と公表
- 1985年: 日本専売公社改組、JT発足

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社会の圧力とタバコ企業の対応②

- 1986年: 日本でタバコ関税撤廃、輸入自由化
- 1988年: 米国ナビスコが、煙が少なく、タールも灰も臭いもないタバコの開発に成功
- 1988年: 日本の地下鉄が終日全面禁煙
- 1990年: 日本のタバコに「あなたの健康を損なう恐れがありますので吸いすぎに注意しましょう」の表示義務
- 1993年: フランスがタバコ広告を全ての媒体で禁止
- 1994年: 米国保険会社と米国政府が、タバコによる医療費上昇への損害賠償訴訟
- 同年: 日本のタバコの自販機が49万台を超える
- 1995年: ニューヨークでレストランとオフィスが全面禁煙化
- 1998年: 全米46州に対し、タバコ会社は総計2460億ドルの和解金を提示
- 同年: 肺ガン患者らがJTと国を相手取り訴訟(06年最高裁で、原告敗訴確定)

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社会の圧力とタバコ企業の対応③

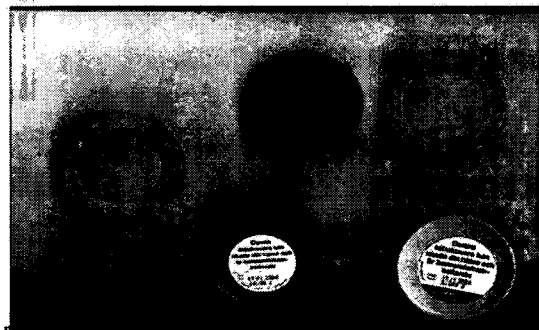
- 1999年: フィリップ・モリスUSAがウェブサイトではタバコが肺ガンなどの疾患の原因であると認める
- 同年: BATがカナダのロスマンズを買収
- 同年: JTがJRIを買収
- 同年: フランスのセイタとスペインのタバカレラが合併、アルタディス発足
- 2002年: 千代田区で路上禁煙条例が施行
- 2004年: イタリアのレストランで分煙しなければ罰金を科す禁煙法が可決
- 2004年: アイルランドのパブが全面禁煙化
- 2004年: ブータンが世界初の禁煙国家を宣言
- 2006年: JTが英国ガラハを買収
- 出所『東洋経済』2007年、3月24日号より(村上が一部追加)

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4.2 各国のパッケージの警告表示



4.3 無煙タバコとは



5.まとめ①

- タバコ企業では社会的責任として、1) 開発途上国(マラウイ、ジンバブエほか)の葉タバコ耕作における児童労働の撲滅、2) 発ガン性物質を含む原材料の開示、3) 未成年者への販売の制限、4) 吸い殻対策、5) 分煙化、6) 社会・環境報告書の公表、7) 無煙タバコの開発、8) 経営多角化などが行われている。

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5.まとめ②

- 各社が着目する製品は無煙タバコである。一般にはスナッフsnuff、スウェーデンではsnusと呼ばれている。世界各国で公共施設、公共交通機関での禁煙化が進められている。禁煙場所でも利用可能な商品がタバコ企業の生存の鍵を握ると考えられる。

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5.まとめ③

- だが、タバコの実存意義が問われていないことに問題が残されている。禁煙の立法化は、かつての米国禁煙法の教訓(アングラ社会の肥大化)もある。
- ブータンのような禁煙国家の誕生は、タバコとの決別を促すモデルとなりうる。その背後には、1)経済成長と開発、2)文化遺産の保護と伝統文化の継承・振興、3)豊かな自然環境の保全と持続可能な利用、4)よき統治の4つを柱とする国民総福祉がある。

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参考文献

- 『週刊 東洋経済』2007年3月24日号
- 村上太『日本公企業史』ミネルヴァ書房、2001年
- たばこ会社各社のウェブサイト(アルトリア、BAT、アルタディス、JT、インペリアル・タバコ、ガラハ、スウィーディッシュマッチ他)
- 日本自動販売機工業会<http://www.jvma.or.jp>

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III. 研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

書籍

著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
繁田正子	喫煙治療学としての禁煙指導・支援～一般外来・禁煙外来での治療～	井埜利博	喫煙病学	最新医学社	大阪	2007	236-265
繁田正子	揺れるあなたと考える・平成タバコ事情	NPO京都禁煙推進研究会	新版・さよならタバコ 卒煙ハンドブック	京都新聞出版センター	京都	2007	1-16
繁田正子	禁煙指導.	山口徹ほか	2008今日の治療指針	医学書院	東京	2008	202-204
繁田正子	COPDの治療・禁煙(禁煙補助薬をふくむ)	永井厚志ほか	呼吸器 Common Disease の診療—COPDのすべて	文光堂	東京	2008	In print
(監訳) 福田吉治 八幡裕一郎 今井博久	一目でわかるヘルスプロモーション:理論と実践ガイドライン	(監訳) 福田吉治、八幡裕一郎、今井博久	一目でわかるヘルスプロモーション:理論と実践ガイドライン	国立保健医療科学院	和光市	2008	印刷中
Hanioka T, Ojima M	Passive smoking in oral health research	Fong CB	Smoking and health research frontiers	Nova science Publishers, Inc	Hauppauge NY	2007	213-230
埴岡隆	第3章8つのNEWS 2. 喫煙	吉江弘正, 高柴正悟 編	歯周病と7つの病気	永末書店	東京	2007	154-158
埴岡隆	喫煙による口腔・歯科疾患/第5章 成人領域での喫煙と健康障害	井埜利博監修	喫煙病学	最新医学社	大阪	2007	167-176
高橋裕子 三浦秀史	インターネットを用いた禁煙支援	日本禁煙科学会	禁煙科学	分光堂	東京	2007	103-107
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三浦秀史	禁煙指導	日本遠隔医療学会	テレメンタリング	中山書店	東京	2007	120-129

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Factors relating to terminally ill cancer patients' willingness to continue living at home during the early phase of home care after discharge from clinical cancer centers in Japan

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ABSTRACT

Objective: To assess the willingness of Japanese terminally ill cancer patients to continue living at home during the early phase of home care after discharge from a Clinical Cancer Center (CCC) in Japan, and to identify factors relating to their willingness to continue living at home.

Methods: A cross-sectional questionnaire survey of a convenient sample of both Japanese terminally ill cancer patients and their caregivers (PFCs) was conducted ($n = 294$, effective response rate 25.0%). Questionnaires were mailed and medical records were accessed for 73 pairs of respondents, comprising one terminally ill cancer patient and one PFC.

Results: At about 10 days after discharge, 64 patients (88%) wished to continue living at home. A hierarchical logistic regression analysis was performed on the data. It was found that the fewer the medical treatments undergone (OR = 0.20, 95% CI: 0.05–0.72), the higher the patients' perception that their condition was consistent with care at home (OR = 2.77, 95% CI: 1.08–8.62) and with their functional well-being (OR = 1.45, 95% CI: 1.08–2.17). In addition, the higher the caregivers' satisfaction with life (OR = 2.37, 95% CI: 1.15–5.77), the more willing patients tended to be to continue living at home.

Significant of results: The willingness of Japanese terminally ill cancer patients to continue living at home appears to be affected by caregiver status. This indicates a need for discharging facilities to monitor the state of home assistance and to investigate the nature of assistance required for continuing home care.

KEYWORDS: End-of-life care, Terminally ill cancer, Willingness to continue living at home, Palliative home care, Clinical Cancer Center

INTRODUCTION

In Japan, cancer is the primary cause of death (about 30%), with about 300,000 people dying from

it each year (Ministry of Health, Labour and Welfare Percentage, 2006). Assurance of end-of-life cancer care in Japan was established when "palliative care unit fees" were first incorporated in the treatment fees paid to medical institutions under the medical insurance system (Umeda & Iwasaki, 2001). Guidance and management fees for cancer patients living at home and treatment fees paid to medical institutions for home terminal cancer patients were

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also established under the medical insurance system. An "additional palliative care treatment fee," for treatment in general hospitals by palliative care teams that meet given criteria, was further established in 2002 (Komoto, 2002). As a result, appropriate, ongoing palliative care is now available at all stages of the treatment of cancer patients, and a smooth transition of patients to palliative care units and home palliative care is expected.

The period immediately after discharge, that is, the week or two preceding the first outpatient visit, is fraught with various problems associated with the transition to home care (Okaya, 2000; Sakai, 2002). Providing information about emergency measures suited to the physical state of the patient, coordinating the many home medical care and welfare-related professional services, and assisting with complicated issues that increase the anxiety of patients and primary family caregivers (PFCs) are considered to be important (Okaya, 2000; Hakata et al., 2002). Few patients make the decision to "live at home until the end" during the initial period of home care, but it is reported that many talk it over with their families and make the decision when their living situation has become clear, between the end of the initial period and 1 to 3 weeks prior to death (Okaya, 2000). Thus, the extent to which the patient wishes to live at home and whether assistance that is consistent with the patient's wishes is given are necessary considerations in the home care process. Adequate assessment and support during the initial period of home care is of prime importance.

The levels of pain experienced by terminally ill cancer patients are a source of anguish for the patient's entire family (i.e., the family caring for the patient) (Tsuneto, 1999; Suzuki et al., 2001). It is presumed that the physical and mental state of PFCs is affected by the physical and mental state of the patient (Rossi Ferrario et al., 2003), and also that the desire of PFCs to provide home care, together with their perception of burden or of well-being and satisfaction with life, will affect the quality of life of the patient and the patient's willingness to continue living at home (Sawada et al., 2001). The finding that the stronger the wish of both patient and PFCs to continue home care the more likely it is that the patient will die at home (Schaapveld & Cleton, 1989; Ishigaki, 1998) suggests that taking into account the experience of not only the patient but also the family is vital to continuing home care (Kaye, 1999).

An understanding of the factors affecting terminally ill cancer patients' willingness to continue living at home during the period of transition from Clinical Cancer Centers (CCCs) to home care will

permit the development of a concrete strategy for the improvement the home care environment, and this can be expected to raise retention rates. It will thus contribute to the overall improvement of the experience of palliative care for terminally ill cancer patients and their family members.

The objectives of this study were (1) To identify the current rate of willingness of terminally ill cancer patients to continue living at home after discharge from CCCs in Japan and and (2) to identify factors associated with the willingness of the patients to continue living at home.

METHODS

Sample

The subjects were terminally ill cancer patients discharged from CCC institutions and their PFCs. All approved of the study and participated voluntarily, and written consent was obtained. The eligibility criteria were (1) terminally ill cancer patient and the patient's PFCs, (2) aged 18 years or older, (3) free from impaired consciousness and psychiatric disorders, and (4) the physician in charge approved the patient's participation.

CCCs are hospitals and equivalent medical facilities in Japan engaged in research into and prevention, diagnosis, and treatment of cancer and other malignant neoplasms and holding seminars for health care professionals.

Study Samples

A total of 294 pairs of patients and PFCs were selected from 13 of the 27 CCCs that agreed to participate in the study. Then 143 eligible patients (49%) and 121 eligible PFCs (41%) returned their completed questionnaire. Of these, 59 patients and 37 PFCs were not eligible, and 11 patients and 11 PFCs expressed a lack of desire to participate in the study by return postcard. As a result, data from 73 pairs of patients and PFC (25%) were ultimately analyzed. Table 1 shows the characteristics of the patients and PFCs.

Procedure

In September 2001, requests for participation in the study were mailed to all of the Japanese Association of Clinical Cancer Centers asking for their cooperation. The cover letter explained that the survey would be both confidential and anonymous. The CCCs were requested to supply the details of eligible patients. If the CCCs had had eligible patients during the study period, they selected all

Table 1. Characteristics of the respondents (n = 73)

A. Characteristics of patients			Characteristics of patients		
	No. of patients	%		No. of Patients	%
Sex			Performance status		
Female	30	41	0	37	51
Male	43	59	1	21	29
Age			2	10	14
Mean ± SD	62.2 ± 10.9		3	4	5
Range	37-84		4	1	1
Education			Total length of hospitalization (days)		
Junior high school	15	21	Mean ± SD	45.7 ± 34.9	
High school	28	38	Median	34	
Technical school/junior college	16	22	Range	3-165	
University/postgraduate	12	16	No. of medical treatments		
Unknown	2	3	0	44	60
Time since discharge (days)			1	17	23
Mean ± SD	9.5 ± 4.4		2	8	11
Median	11		3	3	4
Range	7-28		4	1	1
Primary site			Mean ± SD	0.5 ± 0.9	
Digestive system	25	34	Median	1	
Lung/pleura	17	23	Range	0-4	
Gynecologic	6	8	Type of medical (Multiple choice)		
Hematopoietic system	6	8	Pain management	26	36
Mammary gland	7	10	IVH	6	8
Other	12	16	Self-injection	4	5
Metastasis			Colorectum stoma care	3	4
Present	50	68	Indwelling catheter	2	3
Absent	23	32	Self-catheterization	2	3
Stage			Bedsore treatment	1	1
III	16	22	Other	6	8
IV	51	70	Perception of cancer at discharge	68	93
Unknown	6	8	Absent	4	5
Therapy			Unknown	1	1
Surgery	36	49	Desire for home care	47	64
Chemotherapy	63	86	Present	26	46
Radiotherapy	28	38	Absent		
Opioid	20	27			

B. Characteristics of PFCs			Characteristics of PFCs		
	N	%		N	%
Sex			Primary caregiver		
Female	46	63	Spouse	54	74
Male	27	37	Child	11	15
Age (years)			Parent	3	4
<40	7	10	Sibling	3	4
40-49	14	19	Friend	1	1
50-59	22	30	Other	1	1
60-69	20	27	Secondary caregiver		
≥70	10	14	Present	67	92
Mean ± SD	56.3 ± 12.7		Absent	6	8
Median	55.5		Desire for home care		
Range	22-91		Present	47	64
Education			Absent	26	36
Junior high school	11	15			
High school	35	48			
Technical school/junior college	13	18			
University, postgraduate	11	15			
Unknown	3	4			

eligible patients ready for discharge after the study began.

Ethical Considerations

The study was conducted only after obtaining the approval of the Institutional Review Board of Kanagawa Cancer Center and of each institution. The subjects were informed in writing in the cover letter of the role of participants and of the procedures for ensuring privacy in the handling of data and protecting patient rights. Written consent was obtained prior to the commitment to participate and again at the commencement of participation. All data in the present study were rigorously managed by the researchers so as to ensure privacy.

Questionnaire

The questionnaire was developed based on a systematic literature review (World Health Organization, 1990; Nagae, 1998; Okamoto, 1998; Miyashita et al., 1999; Naylor et al., 1999; Nagae et al., 2000; Naylor, 2000; Ogata et al., 2000) and on pilot study interviews with several terminally ill cancer patients and their PFCs, two directors of home nursing stations providing terminal cancer care, and four oncologists as well as on the experience of the investigators.

The researchers developed the framework of the study (Fig. 1). We proposed two groups of factors

associated with the willingness of patients to continue living at home: patient factors and PFC factors. The former were divided into pre-discharge “patient characteristics,” which had been defined at discharge and could not be changed (or were difficult to change) by health care and welfare professionals, and “patient discharge-related information,” which was both documented and related to matters that occurred after discharge or could be altered by subsequent events. These data were normally used for postdischarge evaluation, in the wake of discharge assistance. PFC factors were related to the characteristics of PFCs.

The study variables were grouped as follows:

1. Patient sociodemographic variables (sex, age, education level).
2. Patient clinical and functional variables: diagnosis; metastasis; stage; therapy undergone before discharge (surgery, chemotherapy, radiotherapy, etc); perception of cancer at discharge; number of medical treatments; performance status (Eastern Cooperative Oncology Group Performance Status; PS) scale (European Organization for Research and Treatment of Cancer, 1996), whose scores range from 1 to 4 (higher scores represent greater functional dependence); and presence or absence of patient desire for home care at discharge.

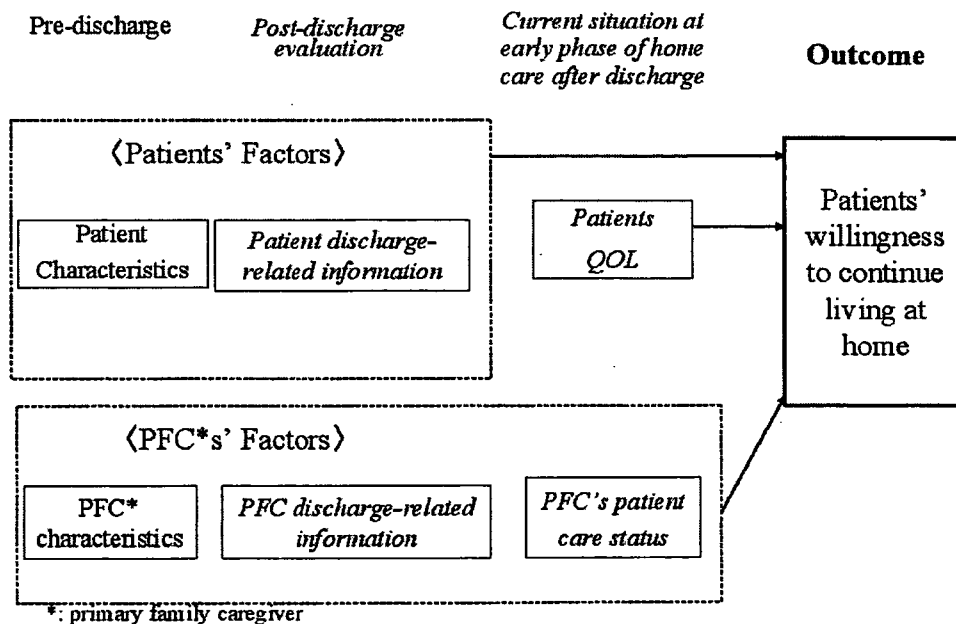


Fig. 1. Research framework of terminally ill cancer patients' and their primary family caregivers' willingness to continue living at home during the early phase of home care after discharge.

3. Patient discharge-related information: patient relationship with PFCs; extent of gap between home care envisioned at discharge and reality; patient satisfaction with discharge care (eight items; five-point scale from "very unsatisfactory" (0) to "very satisfactory" (4): The total score of eight items was used as a single subscale in the subsequent analyses, due to good internal consistency (Cronbach's alpha coefficient = .91), a higher score indicating higher satisfaction with discharge care, within a possible range of 0–32); and stability of correspondence of reality to their image of living at home before discharge.
4. Patient's quality of life: assessed using the subscales of the 27-item Japanese version of FACT-G (QOL). QOL consists of four domains: physical well-being (PWB, 7 items; range 0–28), social well-being (SWB, 8 items; range 0–32), emotional well-being (EWB, 5 items; range 0–20), and functional well-being (FWB, 7 items; range 0–28). Each response was calibrated using a five-point scale. Higher scores indicate higher levels of well-being (Cella, 1997).
5. PFC variables: sociodemographic variables (sex, age, education level); relationship with patient; extent of gap between home care as envisioned at discharge and reality; presence or absence of other family caregivers; and satisfaction with discharge care. The same items

as for patients were employed (Cronbach's alpha coefficient = .89).

6. Characteristics of caregiver's support at the time the questionnaire was filled out (after discharge): eight items relating to the PFCs' perception of burden in their situation, such as arrangements for and information held relating to support available when there are changes in medical treatment, or whether respite care is utilized. Respondents chose one of five responses from "inapplicable" to "very applicable."
7. The patient's and the PFC's willingness, or not, to continue with living at home arrangements in the future.

Statistical Analysis

To determine the potential determinants of patients' willingness to continue living at home from the data, preliminary univariate analyses were conducted, as appropriate, using the unpaired *t* test, the chi-square test (Fisher's exact methods), and the trend test (Cochran–Armitage's trend test) for contingency tables with ordinal data.

The next objective was to simultaneously explore the relationship to patients' willingness to continue living at home to the groups of items covering "patient characteristics," "patient discharge-related information," "patient QOL," and "PFCs' status"

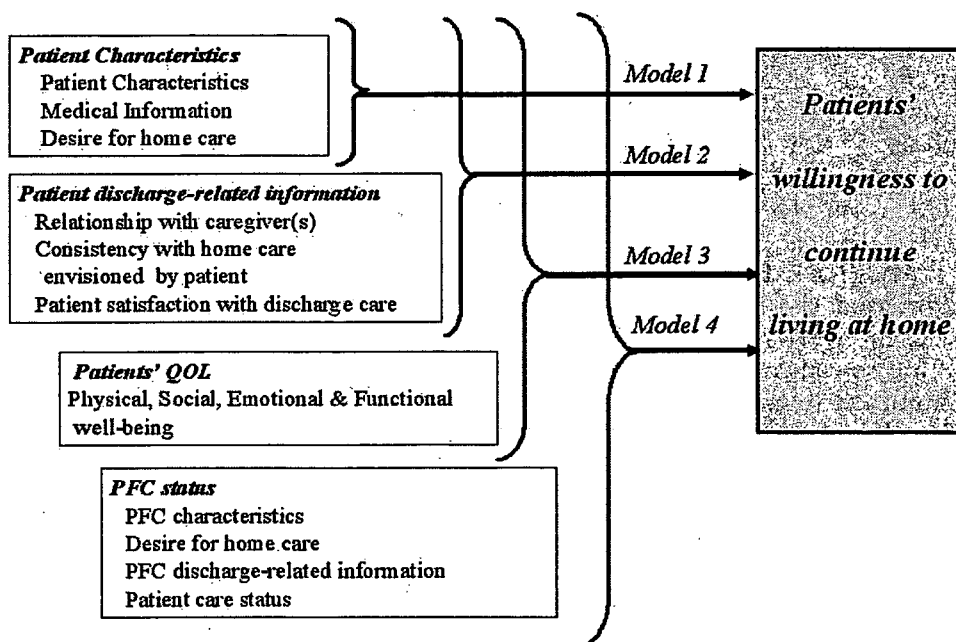


Fig. 2. Analysis model of factors related to patients' willingness to continue living at home during the early phase of home care after discharge.

(Fig. 2). After the univariate analysis, a hierarchical logistic regression analysis (backward elimination; $p > .2$), in four steps, was performed to extract the higher determinants of the patients' willingness to continue living at home: Model 1 consisted of "patient characteristics" alone; Model 2 consisted of Model 1 with "patient discharge-related information" added; Model 3 consisted of Model 2 with "patient QOL" added; and Model 4 consisted of Model 3 with "caregiver status" added. Data analyses were conducted using the SAS ver.8.2 statistical software package (SAS Institute, Cary, NC, USA). All p values were two-tailed and statistical significance was set at the $p < .05$ level.

RESULTS

Patients' Willingness to Continue Living At Home and Related Factors

At about 10 days after discharge, 64 patients (88%) wished to continue living at home. The significance levels of the correlations between patients' willingness to continue living at home and patients' and PFCs' sociodemographic variables are shown in Table 2.

The willingness to continue living at home was significantly lower in patients who underwent a larger number of medical treatments than in patients who underwent fewer treatments ($p = .05$). Patients who had desired home care at discharge also showed a significantly greater willingness to continue living at home ($p = .05$). The more consistent patients felt that their home care after discharge was as they envisioned it before discharge, the more willing they were to continue ($p = .01$). And finally, the higher the score for emotional well-being and the higher the score for functional well-being, the more willing patients were to continue living at home ($p = .01$ and $p = .03$, respectively).

Turning our attention to PFC variables, the fewer PFCs who expressed the need for further care-related support, the more patients responded that they were willing to continue living at home ($p = .002$). In addition, the higher the caregivers' satisfaction with life, the more willing patients tended to be to continue living at home ($p = .19$).

For variables that exhibited a significant correlation in the univariate analysis, a hierarchical logistic regression analysis was performed using age, sex, and four domains of QOL as independent variables (Table 3).

In Model 1, the number of medical procedures undergone (OR = 0.49, 95% CI: 0.23–0.97, $p < .05$) was significant. In Model 2, the number of medical

procedures (OR = 0.44, 95% CI: 0.19–0.90, $p < .05$) and the perception of consistency between care at home as envisioned by the patient and the reality (OR = 2.70, 95% CI: 1.34–6.41, $p < .05$) were both significant. In Model 3, the number of medical procedures undergone (OR = 0.39, 95% CI: 0.13–0.94, $p < .05$) and level of functional well-being (OR = 1.36, 95% CI: 1.06–1.94, $p < .05$), as a domain of patient QOL, were significant. The perception of consistency of care at home as envisioned by the patient and the reality (OR = 2.39, 95% CI: 0.95–7.19, $p < 0.2$) was no longer statistically significant in Model 3.

In Model 4, the significance of number of medical procedures (OR = 0.20, 95% CI: 0.05–0.72, $p < .05$) was low, the significance of perception of consistency of care at home as envisioned by the patient and the reality (OR = 2.77, 95% CI: 1.08–8.62, $p < .05$) was high, the significance of functional well-being (OR = 1.45, 95% CI: 1.08–2.17, $p < .05$) was high, and the higher the caregivers' satisfaction with life (OR = 2.37, 95% CI: 1.15–5.77, $p < .05$), the more willing the patient tended to be to continue living at home.

The model contribution ratios were 17%, 30%, 39%, and 50% for Models 1, 2, 3, and 4, respectively, increasing in order from Models 1 to 4.

DISCUSSION

In the present study, we investigated factors relating to the willingness of patients, early in the period of transition from CCC to home care, to continue living at home, in order to identify possible concrete support strategies for terminally ill cancer patients in this period of home care.

The Association between Characteristics of the Early Phase of Home Care and the Willingness of Terminally Ill Cancer Patients to Continue Living at Home

This study revealed that the physical and psychological burden caused by a large number of medical treatments and inconsistency between home care as envisioned and its reality were factors that made it difficult to accept the continuance of home care (Kaye, 1999). Another important finding is that care provided after discharge should be, as far as possible, consistent with that envisioned by patient before discharge.

Discharge services should address this aspect (Naylor et al., 1999, 2000; Naylor, 2000). Furthermore, the factor where the greater the patient's perception of functional well-being, the more likely are the functions of daily living to proceed smoothly

Table 2. Result of univariate analysis on patients' willingness to continue living at home ($n = 73$)

Patient characteristics	Patients' willingness to continue living at home		<i>p</i> value
	Present ($n = 64$)	Absent ($n = 9$)	
	No. of patients (%)	No. of patients (%)	
A. Patient Characteristics			
Age (years)			
<40	1 (50)	1 (50)	0.42 ¹
40-49	8 (80)	2 (20)	
50-59	25 (93)	2 (7)	
60-69	14 (88)	2 (13)	
≥70	16 (89)	2 (11)	
Sex			
Female	24 (80)	6 (20)	0.76 ²
Male	40 (93)	3 (7)	
Education			
Junior high school	15 (100)	0 (0)	0.21 ²
High school	24 (86)	4 (14)	
Technical school/junior college	12 (75)	4 (25)	
University, postgraduate	11 (92)	1 (8)	
B. Medical Information			
Primary site			
Digestive system	23 (88)	2 (12)	0.38 ²
Lung/pleura	15 (92)	2 (8)	
Gynecological	6 (100)	0 (0)	
Hematopoietic system	6 (100)	0 (0)	
Mammary gland	5 (71)	2 (29)	
Other	9 (75)	3 (25)	
Metastasis			
Present	43 (86)	7 (14)	0.74 ²
Absent	21 (91)	2 (9)	
Stage			
III	15 (94)	1 (6)	1.00 ²
IV	45 (88)	6 (12)	
Total length of hospitalization (days)			
<30	27 (84)	5 (16)	0.62 ¹
30-59	15 (88)	2 (12)	
60-89	15 (94)	1 (6)	
>=90	7 (88)	1 (13)	
Performance status			
0	34 (92)	3 (8)	0.37 ¹
1	17 (81)	4 (19)	
2	10 (100)	0 (0)	
3	2 (50)	2 (50)	
4	1 (100)	0 (0)	
Surgery			
Yes	31 (86)	5 (14)	0.74 ²
No	33 (89)	4 (11)	
Chemotherapy			
Yes	55 (87)	8 (13)	1.00 ²
No	9 (90)	1 (10)	
Radiotherapy			
Yes	25 (89)	3 (11)	1.00 ²
No	39 (87)	6 (13)	
No. of medical treatments			
0	40 (91)	4 (9)	0.05* ¹
1	16 (94)	1 (6)	
2	5 (63)	3 (38)	
3	3 (100)	0 (0)	
4	0 (0)	1 (100)	

(continued)

Table 2. Continued.

Patient characteristics	Patients' willingness to continue living at home		p value
	Present (n = 64)	Absent (n = 9)	
	No. of patients (%)	No. of patients (%)	
C. Desire for home care			
Present	43 (91)	4 (9)	0.05* ²
Absent	21 (81)	5 (19)	
Patient discharge-related information			
Relationship with caregiver(s)			0.30 ¹
Not at all good	0 (0)	0 (0)	
Marginally good	0 (0)	0 (0)	
Somewhat good	3 (100)	0 (0)	
Quite good	9 (69)	4 (31)	
Extremely good	52 (91)	5 (9)	
Consistency with home care envisioned by patient			0.01** ¹
Completely different	0 (0)	0 (0)	
Quite different	0 (0)	1 (100)	
Somewhat different	10 (71)	4 (29)	
Marginally different	4 (100)	0 (0)	
Identical	50 (93)	4 (7)	
Patient satisfaction with discharge care (score)³ (range 0–32)			0.29 ¹
<21 points	11 (73)	4 (27)	
21–25 points	19 (91)	2 (10)	
26–27 points	11 (100)	0 (0)	
>=28 points	23 (89)	3 (12)	
Patient QOL (FACT-G)			
Physical well-being³ (range 0–28)			0.26 ¹
<12 points	14 (78)	4 (22)	
12–19 points	20 (95)	1 (5)	
20–23 points	14 (78)	4 (22)	
>=24 points	16 (100)	0 (0)	
Social Well-being³ (range 0–32)			0.46 ¹
<21 points	6 (100)	0 (0)	
21–23 points	2 (80)	0 (20)	
24–27 points	5 (91)	1 (9)	
>=28 points	51 (85)	8 (15)	
Emotional well-being³ (range 0–20)			0.01** ¹
<10 points	13 (72)	5 (28)	
10–12 points	19 (86)	3 (14)	
13–16 points	14 (93)	1 (7)	
>=17 points	18 (100)	0 (0)	
Functional well-being³ (range 0–28)			0.03* ¹
<12 points	25 (78)	7 (22)	
12–17 points	27 (93)	2 (7)	
18–21 points	11 (100)	0 (0)	
>=22 points	1 (100)	0 (0)	
PFC status			
D. PFC characteristics			
Age (years)			0.30 ¹
<40	7 (100)	0 (0)	
40–49	11 (79)	3 (21)	
50–59	21 (95)	1 (5)	
60–69	18 (90)	2 (10)	
>=70	7 (70)	3 (30)	
Sex			0.53 ²
Female	39 (85)	7 (15)	
Male	25 (93)	2 (7)	
Education			0.84 ²
Junior high school	9 (82)	2 (18)	
High school	31 (89)	4 (11)	
Technical school/junior college	11 (85)	2 (15)	
University/postgraduate	10 (91)	1 (9)	

(continued)