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| **APPENDIX A** | | | | |
| **Reference** | **Outcome measure** | **Research Design** | **Sample** | **Findings** |
| **Cardello et al. (1984)**  only abstract! | Patient and staff:  1. Evaluation of menu items  2. opinion surveys on various aspects of foodservice system  3. structured interviews of foodservice personnel  4. written surveys and interviews of nursing staff | Multi-user assessment approach  Evaluating and comparing a cook-freeze hospital foodservice system and a conventional cook-serve system | Servings in wards +  Servings in hospital cafeteria | Cook-freeze system provided better perceived serving temperatures on the wards than the conventional cook-serve system, with only slight losses in sensory acceptance.  Nursing staff rated the cook-freeze system as more convenient and attractive, but questioned the quality of the meals served |
| **Elmståhl et al. (1987)**  only abstract! | 1-day dietary record, made once a week  Intake of energy (kcal)  Intake of D-vitamin?  Intake of protein?  Blood chemistry? | Experiement?  Dining room redecorated in style similar to 1940’s  Food served by staff on serving-dishes, patients could help them self | 16 patients (5 males, 11 females)  Age 65-88  Long-term care ward,  Geriatric department  Studied before, during and after a changed meal environment | During the experimental period the intake of energy and protein increased by 25% (p< 0.001)  No significant changes in body weight, might reflect an increased physical activity. |
| **Cardello et al. (1996)** | Study 1.  Quantitative data – 9 point scale  *acceptability (like/dislike)*  Expected quality of 12 food items  Study 2.  Quantitative data – 9 point scale  *Perceived quality* of ingredients, preparation, food presentation, physical dining setting, variety, cleanliness, service and expertise of cooks | 5 studies in all (only two with relevance)  1. questionnaire (hedonic scale)  *Expectations and attitudes*  testing different settings  (ANOVA analysis with Neuman-Keuls post-hoc tests)  2. questionnaire  (direct discriminant analyses) | Study 1.  Geographically and operationally distinct military groups  57 male, age 19-29  84 male, age 19-35  University students  61 males, age 18-25  60 females, age 18-25  Traditional full service restaurant, school/college dining hall, at home, diner/fast food restaurant, military dining hall, airline foodservice, hospital foodservice  Study 2.  97 civilian employees  26 military personnel  Age 18-65  50% male, 50% female | Broad and significant effects of institutional food stereotypes on food acceptance and food quality ratings.  1. Hospitals were perceived significantly lower (p<0,05) than food served at home.  2. Lowest scores were manner of food presentation, the physical setting and the variety of food items. |
| **Holm & Smidt (1997)**  *Holm & Jacobsen (1990)* | Study a,  Questionnaires (predetermined response categories)  Opinions about the food and food system  (satisfaction)  Study b,  Interviews (semi-structured, thematic – open and in-depth)  Personal experience and considerations  On quality of life  Study c  observations (unstructured, non-participant, overt)  physical environment and social interaction around meals  food intake? | 3 methods ‘triangulation’  Evaluation study combining quantitative survey method with qualitative interviews and observation  Study evaluating the impact of the introduction of a new food system in a hospital ward for children with cancer  From a centralized food production system to locally staffed kitchen built in the middle of the ward | Malnutritioned children with cancer  Rigshospitalet, DK  Study a  91 children, age > 12  83 parents  75 staff  In hospital ward  Study b  12 children, age 6-18  12 parents  10 staffmembers  At ward or at childrens home  1-2 h, and youngest ½h  Study c  1 week in ward rooms and corridors/ meal situations in kitchen-dining rooms (4 meals) | Severe status differences between patients and staff.  For patients and parents food was a central part of their quality of life while hospitalized. For staff food was a area of low status.  In the traditional food system mean energy intake was 49%, new system increased the mean energy intake to 70% of recommended intake |
| **Edwards & Hartwell (2004)** | Dietary data  (energy intake)  Evening (kcal)  Midday (kcal)  Breakfast (kcal) | A small pilot study.  Data collected for 3 consecutive 24 h periods from patients who consumed meals either in bed, at side of bed or in presence of others. Food items weighed using Hanson Digital scales. Nutritional analysis using Microdiet software program. Statistical analysis using SPSS. | n = 13 (in all)  n=4 (at table)  n=5 (at bed)  n=4 (in bed)  post-operative patients  ambulant  age 36-62  Womens’s Health Unit , NHS hospital, UK.  Pre-ordered meals, plated in kitchen and placed onto patient trays | Significant increase (p<0.05) found in the mean daily energy intake for those sitting around table in the presence of others (especially at midday meal)  However, no significant difference in evening meals and only difference between table and by bed at breakfast |
| **Hartwell et al. (2006)** | Patient satisfaction  Meal experience | Focus groups + Open-end interviews.  NHS hospital, UK.  Bulk Trolley Foodservice System  Purposive sampling  Data collected until saturation point  Focus groups in ward (½ h)  Open-end interviews in respondent’s office (½ h)  Interviews transcribed, text analysis using NUD\*IST, a computer-assisted qualitative data analysis software package together with researcher own knowledge and understanding | n=4 (doctors)  n=5 (nurses)  n=3 (ward hostesses)  n= 10 (patients +visitors)  foodservice manager, facilities manager, chief dietitian, orthopaedic ward dietitian, chief pharmacist  Orthopaedic ward  Males and females  Patients age 66-84  Patients length of stay > 7 days | Food qualities, particularly temperature and texture are important factors impinging on patient satisfaction, and the trolley system of delivery is an acceptable style of service  Service predisposition demonstrates little relevance to patient satisfaction towards overall meal enjoyment |
| **Hartwell et al. (2007)** | Patient satisfaction  via consumer opinion card with 7-point rating scales + space for open-ended comments  Five attributes of the food was rated; temperature, texture, flavor, portion size, respondents’s overall opinion of the food | Bulk trolley foodservice system versus plate delivery foodservice system.  Quality indicators of food  *(used to measure patient satisfaction)*  Comparision between service style and food attribute was tested with the Mann-Whitney U test. Binary logistic regression analysis *(to build model predicting food service style).* Multinomial logistic regression  *(to predict opinion for the assessment of each food attribute)* | n=180  orthopaedic wards  1 month period  59 female  41 male  Age 20-80  Length of stay 1 day to 1 week  NHS Hospital, UK where a plated system was in place, and a bulk trolley system to be introduced | Bulk trolley enables food to have more acceptable texture, temperature and flavor then plate delivery system |
| **Paquet et al. (2008)** | Relationships between patients’ intake and the number of interpersonal exchanges with mealtime fellows  (aagency and communication dimensions)  The nature of behaviors expressed  (verbal/ non-verbal)  The degree of complementarity  Food intake (visual estimation of portion, using 5-point Comstock scale)  Meal duration | Observation on repeated mealtime occasions  Experience sampling methods or ecological momentary assessment techniques  Multilevel regression analyses  Use of interpersonal circumplex model in observation to evaluate how specific elements of the meal social environment contribute to the social facilitation | n=1477  32 geriatric patients  21 female  11 male  Mean age 78,8  Rehabilitation unit in geriatric facility, Canada.  Meals consumed in common dining area with 24 diners  6 tables, eating in company of 2-3 fellow patients  3 meals a day, every day until discharge (max 6 weeks) | The total amount of interaction between patients was positively related to intake  The effect was significant for both participants’ own behaviors and those to which they were exposed |