ADVISING AT-RISK STUDENTS IN COLLEGE AND UNIVERSITY SETTINGS

DANA L. HEISSERER
PHIL PARETTE
Southeast Missouri State University

The importance of intrusive advising at-risk college and university students (i.e., students who: are ethnic minorities, are academically disadvantaged, have disabilities, are of low socioeconomic status, and are probationary students) has been repeatedly emphasized in the professional literature. Intrusive advising strategies are typically used with at-risk students, and are special techniques based on prescriptive, developmental, and integrated advising models. Numerous benefits to using intrusive advising are noted, along with examples of strategies used with five at-risk groups. Recommendations for college and university advisors include the need for a comprehensive plan that addresses intrusive advising, adequate faculty and advisor training, web supports for targeted students, development of comprehensive databases for managing student data, and ongoing research to evaluate intervention effectiveness.

Research literature on student retention and attrition suggests that contact with a significant person within an institution of higher education is a crucial factor in a student's decision to remain in college (Chickering & Gamson, 1987; Glennen, Farren, & Vowell, 1996). In the past few decades, many claims have been made with regard to the important role that quality academic advising programs play in the successful recruitment and retention of students (see e.g., Glennen et al., 1996; Habley, 1986; Habley & Crockett, 1988; Metzner, 1989; Trombley & Holmes, 1981). Higher education professionals who come in direct contact with students and understand the challenges they face are primary candidates for advisor/mentor roles. While faculty, administrators, and student affairs professionals all serve as student advocates and play an integral part in student retention and attrition, advisors are typically in the best positions to assist students in making quality academic decisions.

Of particular importance to academic advisors in college and university settings are students who are deemed to be at-risk (Jones & Watson, 1990; Kobrak, 1992). For purposes of this discussion, the term at-risk students will refer to several groups of individuals: students who are (a) ethnic minorities, (b) academically disadvantaged, (c) disabled, (d) of low socioeconomic status, and (e) probationary students.

Impact of At-Risk Students on Colleges and Universities

Jones and Watson (1990) have noted that at-risk students and their retention have a substantial impact on both institutions of higher education and society in general. Specifically, retention affects (a) funding patterns, (b) facilities planning, and (c) academic curricula offered. Retention also affects the future labor market, because students who do not have proper training

for the workforce are generally unprepared to meet the expected roles and responsibilities associated with particular vocations.

Nationally, high student attrition (50%) among first year college students continues to be a trend (Arendale, 1993). Many authorities have discussed the reasons for academic attrition among at-risk students. For example, inequitable resource allocations across school districts and in home settings (i.e., low income vs. high income) result in fewer educational learning materials and experiences for some students (Jones & Watson, 1990; Lockard, Abrams, & Many, 1997; Piller, 1992; Resta, 1992).

Other authorities have described the effects of lowered expectations on the self-esteem of students in the early public school years, resulting in diminished self-confidence in academic potential and performance on entering college (Bandura, 1977; Higher Education Extension Service, 2000). Once students are enrolled in the college or university setting, they may not feel that they are a part of the campus community. They may become particularly vulnerable to feelings that they don't belong, feel rejected, and may not adjust to normal academic challenges associated with college life. They may also be undecided about an area of study, or feel they do not 'fit' their chosen major (Grites, 1982; Mash, 1978), resulting in a greater likelihood that they may drop-out or demonstrate poor academic performance. Many high-risk and underrepresented groups in the campus community may not enter the university with an already well-established commitment to it, or even to higher education.

Given the importance of increasing student retention, colleges and universities have focused considerable attention on developing appropriate strategies to increase the retention rates of these students (see e.g., National Academic Advising Association, 2000). Generally, successful strategies have emerged from the various academic advising models reported in the literature.

Models of Advising

In order to understand the importance of specific counseling skills in the advising process, models that provide the foundation for academic advising must be described. Three models have been frequently advocated in the professional literature. These include the prescriptive, developmental, and integrated advising approaches.

Prescriptive advising. First described by Crookston (1972), a prescriptive advising approach is characterized by an authoritarian relationship in which the advisor makes a "diagnosis", prescribes a specific treatment for the student, and the student follows the prescriptive regimen. The student assumes no responsibility for decision-making, and relies totally on the advisor's recommendations. Specific prescriptions typically focus on course selection, degree requirements, and registration (Crookston, 1972).

While Crookston (1972) reported negative aspects of this advising model, particularly the lack of student involvement in the decision-making process, other researchers have noted advantages to the model. For example, Fielstein (1989) found that over 50% of students rated six prescriptive activities as high priority: (a)

explaining graduation requirements, (b) discussing course selection, (c) planning a course of study, (d) discussing education goals, (e) exploring career options, and (f) explaining registration procedures. Pardee (1994) noted that many students are conditioned to expect prescriptive advising, as they have not been exposed to other approaches. Interestingly, minority students often show a preference for prescriptive approaches (Brown & Rivas, 1994). When an advisor is directive and informs students about the nuances of college life, many minority students may have a tendency to perceive the advisor as competent, listen more intently, and assume more responsibility for their own actions (Chando, 1997).

Developmental advising. The term developmental advising, first coined by Crookston (1972), refers to a shared responsibility between the student and advisor that promotes initiative and growth in the student. Instead of simply routinely answering questions relevant to a student's needs, the advisor directs the student to proper resources, thus facilitating the development of greater independence, decision-making, and problem-solving (Chando, 1997).

Support for the positive aspects of and student preferences for developmental advising have frequently been reported in the literature (e.g., Winston & Sandor, 1984; Ender, 1994; Gordon, 1994; Pardee, 1994). However, weaknesses have also been noted. For example, Gordon (1994) listed shortcomings including (a) time, (b) large caseloads, (c) lack of advisor training, (d) lack of consistency in advisor contacts, (e) autonomous advising units, (f) poor integration between student and academic services, (g) lack of training and working with a diverse student body, and (h) lack of effective evaluation strategies. Ender (1994) suggested that ineffective developmental advising tended to be associated with faculty advisors who experience increased out-of-class expectations, lack of institutional reward incentive for performing developmental advising, and a tendency of institutions to rely more heavily on part-time faculty.

Integrated advising. Despite the shortcomings of both prescriptive and developmental advising models, strengths have been noted in both approaches, suggesting that elements of the two be implemented in higher education settings (Fielstein, 1994). Numerous authorities have proposed a comprehensive approach to advising that emphasizes informational and counseling roles (see e.g., Andrews, Andrews, Long, & Henton, 1987; Frost, 1993; Trombley, 1984).

Skills and Competencies Essential for Academic Advisors

Many of the studies reviewed in the literature described characteristics of at-risk students and effective strategies for working with these populations. Numerous skills have been described in the professional literature as being critical for successful academic advising (see e.g., Gordon & Habley, 2000; Peterson & Nisenholz, 1999; Winston, Miller, Ender, & Grites, 1984). Presented in Table 1 are categories of at-risk students and intrusive advising approaches that have been documented as being effective.

A number of authorities have indicat-

ed that regular faculty-student contact is the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success (Chickering & Gamson, 1987; Glennen & Vowell, 1995). Of particular importance is the one-to-one relationship that is typically present between the student and advisor that provides an opportunity for the student to build a personal link with the institution (Nutt, 2000). Often the academic advisor is the only link the student has with the institution, having a profound effect on the student's academic career and the student's level of satisfaction with his/her college choice (Chickering & Gamson, 1987; Glennen & Vowell, 1995; Nutt, 2000).

In addition to being knowledgeable about academic programs and curricula requirements within the institution, the advisor's ability to give accurate and correct academic guidance is often the most commonly stated expectation of students receiving advising services (Creamer & Scott, 2000). Unfortunately, most advisors focus primarily on the academic information they need to deliver to the student, acting as the "teller" or the "expert" in the relationship, and ignore or overlook other important student needs (Frost, 1991).

In addition to the aforementioned competencies, three specific skills appear to be associated with effective one-to-one advising. These include communication, questioning, and referral skills (Nutt, 2000).

Communication skills. Six basic communication skills are necessary for establishing rapport in the at-risk advising relationship. These include (a) establishing and maintaining eye contact (Peterson & Nisenholz, 1999), (b) allowing students the opportunity to fully explain their ideas or problems (Egan, 1994), (c) being sensitive to body language (Carkhuff, 1987; Peterson & Nisenholz, 1999), (d) focusing on the content and tone of the student's words (Peterson & Nisenholz, 1999), (e) acknowledging what the student is saying through verbal and nonverbal feedback (Peterson & Nisenholz, 1999), and (f) reflecting on or paraphrasing what the student has said (Nutt, 2000).

Questioning skills. Advisors working with at-risk students must be adept at using questioning skills (Nutt, 2000). The key to effective questioning is to focus on student concerns versus issues/topics deemed important by the advisor. Generally, advisors rely on two types of questions during the advising process: (a) open-ended (i.e., those allowing students to select subject matter of interest to them, thus providing their own structure to the session) (Ivy, 1971); and (b) closed-ended (i.e., short-answer, thus facilitating the gathering of factual information) (Nutt, 2000). Use of both types of questions are important in the at-risk advising process, as each provides different types of information and communicates different things to students (e.g., open-ended questions communicate interest in the student whereas closed-ended questions communicate interest in facts).

Referral skills. Successful at-risk advising relationships typically are not established unless the advisor moves beyond simply asking a student questions to making referrals based on the informa-

tion gained through the questioning process. Once student issues are identified using appropriate questions, the advisor has an obligation to make judgments regarding how best to serve the student. As Nutt (2000) noted, making referrals should not be perceived as "only a method of getting them out of the advisor's office instead of as a genuine desire to assist students in the best way possible" (p. 223), Advisors should clearly and openly communicate why the student should seek outside assistance (i.e., from another source). The advisor and student should jointly determine the nature of the problem for which student assistance is needed, followed by development of a plan of action that includes the referral. Such a collaborative process requires an extensive knowledge base on the part of the advisor regarding the array of services available on campus and in the community.

Effects of Academic Advising on Student Retention/Persistence

Student persistence is critical in obtaining a college degree and it is an important criterion by which success in college is measured (Passarcella & Terenzini, 1991). College and university student persistence and attrition has been examined closely in the professional literature during the past 20 years. As noted by Cuseo (1991), nearly 40% of all students leave institutions of higher education without receiving their four-year degrees. According to Tinto (1993), more students leave higher education settings prior to degree completion than stay. About one-half of all students who drop out of college do so during their freshman year; many leave during the first six to eight weeks (Noel, Levitz, & Saluri, 1985). Studies have shown that a student's sense of belonging is directly related to their persistence, or decisions made to remain in school (Tinto, 1993). This sense of belonging is increased or decreased through interactions with the academic and social environments of the university.

Student persistence and degree attainment significantly impact the economic success for colleges and universities. Attrition (i.e., student dropout) has far-reaching consequences not only for students who depart prior to degree attainment, but also for the institutions from which they depart (Productivity, Quality and Outcomes Task Force on Advising, 1998). Student attrition directly impacts institutions of higher education by the loss of tuition income and with the additional costs of recruiting new students (Holbrook, 1981).

Research has shown that the only variable that has a direct effect on student persistence is the quality of a relationship with significant member(s) of the college community (cf. Losser, 1985; Noel, 1976; National Academic Advising Association, 1994). The sense of student belonging in the academic community that was reported by Tinto (1993) is increased or decreased through interactions with the academic and social environments of the university. Tinto's findings have been extended to include student expectations (see Braxton, Vesper, & Hossler, 1995). In synthesizing the volume of studies conducted in this area, Wyckoff (1999) reported that the primary negative characteristic linked to student attrition was inadequate academic advising.

Tinto (1990) stated that institutions of

higher learning provide adequate resources and effectively utilize faculty advisors to encourage student retention. Other studies have found that an array of services, including advising, testing, and developmental education, coupled with the involvement of many institutional professionals, resulted in greater student retention at the undergraduate level (Dinoto, 1991; Glennen & Baxley, 1985; Glennen et al., 1989).

The Intrusive Advising Model and At-Risk Students

One approach that has gained increased attention in the literature is intrusive advising with at-risk students. Earl (1988) suggested that intrusive advising is "deliberate intervention...to enhance student motivation" (p. 27). Generally, intrusive advising approaches include a range of intervention strategies that connote interest in and involve the advisor in the affairs of the student (Glennen, 1995), and which culminate in increased motivation on the part of the student (Earl, 1988). For this discussion, intrusive advising is defined as "intensive advising intervention with an at-risk student that is designed to (a) facilitateinformed,responsible
decision-making, (b) increase student motivation toward activities in his/her social/academic community, and (c) ensure the probability of the student's academic success." Earl (1988) suggested that intrusive advising is "deliberate intervention...to enhance student motivation" (p. 27).

Intrusive advising has many advantages. Of particular importance is the positive effect the use of such advising approaches has on retention rates and increased number of credit hours completed (Bray, 1985; Brophy, 1984; Nichols, 1986); increased gpa demonstrated by students (Schultz, 1989; Spears, 1990); and use of study skills, time management strategies, and classroom attendance (Spears, 1990).

Holmes (2000) summarized a range of reports and noted that the benefits were fourfold: students (a) are more inclined to keep up with their work if they know an academic advisor will contact them; (b) have fewer financial worries; (c) receive necessary connections to university retention services; and (d) are referred to needed support services, thus communicating that someone at the institution cares about them.

Recent studies have also supported the use of intrusive advising strategies with special populations of students, including those exhibiting classroom behavioral problems (Chandler, 1999), transfer students on academic probation (Cooper & Franke, 1992), minority students (Walton, 1979), and disadvantaged students (Wagner & McKenzie, 1980). Intrusive advising has also produced positive results in graduation rates and time to graduation among targeted groups of student (Glennen et al., 1996). From an administrative perspective, Glennen and Farren (1990) found that an intrusive advising program increased retention and resulted in substantial increased state funding over a 5-year period.

Such studies regarding effectiveness have led to innovative approaches for advising on college and university campuses. Kroll (1990) described a model consisting of five key service components that were perceived favorably by both students and advisors: (a) preservice and inservice advisor training, (b) intrusive stu-

dent advising, (c) dissemination of profile data on new students to advisers, (d) streamlined registration and group advising, and (e) development of advising support materials. Sayrs (1999) described an intrusive advising program, A Proactive Advising System for Students (PASS), with undergraduate psychology majors. The program consisted of a tri-weekly course progress system, periodic telephone calls to students, informational newsletters, and a Psychology Career Information Compendium. Students who participated in PASS initiated more contact with their academic advisor, reported significant increases in overall satisfaction with the advising system, reported significant increases in satisfaction with the efficiency and structure of the advising system, earned significantly higher final percentages in psychology courses than control subjects, and earned higher grades in psychology courses than control subjects.

Conclusions and Discussion

The increasing number of students who are at-risk for academic failure, coupled with effective intervention approaches reported in the literature, suggests that academic advisors should strive to be more intrusive in their interactions with student advisees. While both prescriptive and developmental strategies have been proven useful across varying target populations of students, institutions of higher learning have recognized the importance of integrated intrusive strategies. For example, Reiff (1997) described a range of approaches that have been used with adults having learning disabilities, and suggested that such integrated approaches are useful with at-risk students in college settings (e.g., strategic goal planning; interactive learning; promotion of self-awareness, self-determination, and self-reliance). Use of these approaches will result in greater student retention among at-risk students, enhanced feelings of "belongingness" within the institution, and greater connectedness with their programs of study and the faculty delivering those programs. From an administrative perspective, greater retention rates have far-reaching financial implications given the increased student revenues that are generated, which in turn often equates with a greater array of resources that are made available on campuses.

The literature clearly suggests that the single most important factor in advising students who are at-risk is helping them to feel that they are cared for by the institution (Bray, 1985; Braxton et al., 1995; Holmes, 2000; Tinto, 1993; Wyckoff, 1999). Helping students to feel valued requires a developmental approach in which the advisor expresses interest in the student, and uses effective communication, questioning, and referral techniques. However, as noted by some minority students (Brown & Rivas, 1994) prescriptive strategies used in the context of the developmental model also communicate a sense of caring to students. This supports the use of integrated advising approaches in which advisors use a wide range of techniques with at-risk students.

Most advisors have not been adequately trained to use integrated advising models with at-risk student populations, suggesting a need for greater training. Similarly, most faculty advisors who work with these

students are not trained to address the unique needs of these students, nor are they rewarded (e.g., merit increases, credit toward tenure/promotion) for their efforts. This is particularly interesting in light of the consistent finding in the literature that regular faculty-student contact is perhaps the single most important factor in helping at-risk students feel a sense of belonging.

Integral to any contact made is to ensure that the student's needs are addressed effectively (Frost, 1991) using effective communication, questioning, and referral techniques. The latter skill of referral assumes that advisors have an extensive knowledge base regarding campus and community resources that might potentially benefit these students.

Advisors must also give accurate and correct academic guidance during their contacts with students, as this has been expressed as a high priority need by at-risk students (Creamer & Scott, 2000). This reinforces the importance of advisors being trained in their respective academic disciplines to ensure that timely and accurate information is conveyed.

Models for effective intrusive advising have been described with increasing frequency at websites around the country (see e.g., California State University-Chico, 2000; Steele & McDonald, 1997; Virginia Polytechnic Institute and State University, 1999) and in the professional literature (e.g., Backhus, 1989; Kobrak, 1992; Romero, 1986). Many colleges and universities can potentially benefit from the work that has been described by these and other resources.

Recommendations that are offered for consideration by college and university personnel include the following:

1. Personnel should make a concerted and coordinated effort to develop a comprehensive plan targeting at-risk students, specifically students on academic probation. A component of this plan (at the advisor/student level) would be to have the student sign a contract/study plan, developed both at the beginning and at the mid-term of the semester, clearly articulating the student's obligations and efforts to successfully be removed from academic probation.
2. Integral to the comprehensive plan is the need for adequate faculty and advisor training related to at-risk students. Both faculty and advisors should participate in a comprehensive needs assessment designed to identify deficits in the existing knowledge bases of advisors on campus. This would result in specific topics being identified and workshops being provided that would enhance the academic advising of at-risk students.
3. Another part of the comprehensive plan would include development of a website on the college or university homepage devoted specifically to at-risk students. This site might include a range of on-line information, services, and interactive elements (e.g., discussion groups, chat rooms, email) that would be useful to specific groups of students. While some efforts have already been made to develop such resources, there should be a more comprehensive approach to ensure that tracking, communication, and support

components are a part of the website.

4. The college or university should compile information from incoming freshmen and other at-risk groups to ensure that a comprehensive database is maintained regarding these students. Such a database is beneficial for a variety of institutional planning purposes, and facilitates long-range planning and decision-making about student needs/services. One important component of this information-gathering approach would be to develop sensitive questionnaires designed to capture a range of relevant concerns (e.g., time management strategies, career goals, potential problems anticipated). A sample of such a questionnaire is included in Figure 2.
5. Personnel should conduct longitudinal research related to the impact of its plan on student retention and student perceptions/satisfaction with strategies that are provided.

References

Andrews, M., Andrews, D., Long, E., & Henton, J. (1987). Student characteristics as predictors of perceived advising needs. Journal of College Student Personnel, 28, 60-65.

Arendale, D. (1993). Understanding the supplemental instruction model. In D. C. Martin, & D. Arendale (Eds.), Supplemental instruction: Improving first-year student success in high-risk courses (2nd ed.) (pp. 3-10). Columbia, SC: National Resource Center for the Freshman Year Experience and Students in Transition.

Backhus, D. (1989). Centralized intrusive advising and undergraduate retention. NACADA Journal, 9, 39-45.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Braxton, J. M., Vesper, N., & Hossler, D. (1995) Expectations for college and student persistence. Research in Higher Education, 36, 595-612.

Bray, C. S. (1985). Early identification of dropout prone students and early intervention strategies to improve student retention at a private university (Attrition, staying environment, persistence, high-risk students, freshmen). Dissertation Abstracts International, 47(01A), 0095.

Brophy, D. A. (1984). The relationship between student development activities and rate of retention in a rural community college. Dissertation Abstracts International, 45(07A), 1990.

Brown, T., & Rivas, M. (1994). The prescriptive relationship in academic advising as an appropriate developmental intervention with multicultural populations. NACADA Journal, 14, 108-111.

California State University-Chico. (2000). Building relationships: Approaches to enhancing retention and advising [On-line]. Available: http://em.csuchico.edu/aap/FacultyStaff/retention.asp

Carkhuff, R. (1987). The art of helping (7th ed.). Amherst, MA: Human Resource Development Press.

Chandler, B. A. (1999). Intrusive advising and its effects on students who exhibit behavioral problems in the classroom (At-risk, community college students, intervention). Dissertation Abstracts International, 60(04A), 989.

Chando, C. M. (1997). Predicting advising style preference from student characteristics (doctoral dissertation, University of Memphis, 1997). UMI Dissertation Services, 930635.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. AAHE Bulletin, 39(7), 3-7.

Cooper, E. J., & Franke, J. S. (1992). Advising under-prepared and transfer students: Integrating English assessment and academic advising. NACADA Journal, 12, 33-37.

Creamer, E. G., & Scott, D. W. (2000). Assessing individual advisor effectiveness. In V. N. Gordon & W. H. Habley (Eds.), Academic

advising. A comprehensive handbook (pp. 339-347). San Francisco: Jossey-Bass.

Crookston, B. B. (1972). A developmental view of academic advising as teaching. Journal of College Student Personnel, 13, 12-17.

Cuseo, J. B. (1991). The freshman orientation seminar: A research based rationale for its value, delivery, and content. (The Freshman Year Experience Monograph No. 9). Columbia, MO: University of Missouri.

Dinoto, D. M. (1991). A study of variations in undergraduate academic advising processes by academic discipline and organizational structure of departments. Dissertation Abstracts International, 52(10A), 3538.

Earl, W. R. (1988). Intrusive advising of freshmen in academic difficulty, NACADA Journal, 8, 27-33.

Egan, G. (1994). The skilled helper (4th ed.). Monterey, CA: Brooks/Cole.

Ender, S. C. (1994). Impediments to developmental advising. NACADA Journal, 14, 105-107.

Fielstein, L. L. (1989). Developmental versus prescriptive advising: Must it be one or the other? NACADA Journal, 9, 33-38.

Frost, S. H. (1991). Academic advising for student success. A system of shared responsibility (ASHE-ERIC Higher Education Report No. 3). Washington DC: The George Washington University, School of Education and Human Development.

Frost, S. H. (1993). Developmental advising: Practices and attitudes of faculty advisors. NACADA Journal, 13, 15-20.

Glennen, R. E. (1995). Obtaining presidential support for advising. In R. E. Glennen & F. N. Vowell (Eds.), Academic advising as a comprehensive campus process, (Monograph No. 2, pp.11-14). Manhattan, KS: National Academic Advising Association.

Glennen, R. E., & Baxley, D. M. (1985). Reduction of attrition through intrusive advising. NASPA Journal, 22, 10-15.

Glennen, R. E., & Farren, P. J. (1990). Fiscal implications of a retention program. In North Central Association of Colleges and Students (Ed.), A collection of papers on self study and institutional improvement (pp. 160-163). Chicago, IL: North Central Association of Colleges and Students.

Glennen, R. E., Farren, P. J., & Vowell, F. N. (1996). How advising and retention of students improves fiscal stability. NACADA Journal, 16, 38-41.

Glennen, R. E., Farren, P. J., Vowell, F. N., & Black, L. C. (1989). Expanding the advising team. NACADA Journal, 9, 25-30.

Glennen, R. E., & Vowell, F. N. (Ed.s). (1995). Academic advising as a comprehensive campus process. National Academic Advising Association Monograph Series (No. 2).

Gordon, V. (1994). Developmental advising: The elusive ideal. NACADA Journal, 14, 71-75.

Gordon, V. N., & Habley, W. R. (2000). Academic advising: A comprehensive handbook. San Francisco: Jossey-Bass.

Grites, T. J. (1982). Advising for special populations. In R. B. Winston, S. C. Enders, & T. K. Miller (Eds.), Developmental approaches to academic advising (pp. 67-83). San Francisco: Jossey-Bass.

Habley, W. R. (1986). Show us the future: The challenges facing academic advising. NACADA Journal, 6, 5-11.

Habley, W. R., & Crockett, D. S. (1988). The third ACT national survey of academic advising. In W. R. Habley (Ed.), The status and future of academic advising (pp. 11-76). Iowa City, IA: American College Testing Program.

Higher Education Extension Service. (2000). The influence of developmental and emotional factors on success in college [On-line]. Available: http://www.review.org/issues/vol3no2.html#Top

Holbrook, M. W. (1981). An analysis of policies and programs for increasing student retention in institutions of higher education in Georgia. Dissertation Abstracts International, 42(10A), 4322.

Holmes, S. (2000). Student recruitment, retention and monitoring [On-line]. Available: http://www.diversityweb.org/Leadersguide/RRAA/Student_Retention/intrusive.html

Ivy, A. (1971). Microcounseling. Springfield, IL: Thomas.

Jones, D. J., & Watson, B. C. (1990). "High risk" students and higher education: Future trends. (ASHE-ERIC Higher Education Report No. 3). Washington, DC: The George Washington University, School of Education and Human Development.

Kobrak, P. (1992). Black student retention in predominantly white regional universities: The politics of faculty involvement. Journal of Negro Education, 61, 509-530.

Kroll, R. C. (1990). Development, implementation, and evaluation of an academic advising model for use in the small, private college. (ERIC Document Reproduction Service No. ED 331 333)

Lockard, J., Abrams, P. D., & Many, W. A. (1997). Microcomputers for twenty-first century educators (4th ed.). New York: Longman.

Losser, R. L. (1985). The problem of student attrition: A one year study of first time freshmen and transfer students. Dissertation Abstracts International, 47(02A), 0433.

Mash, D. J. (1978). Academic advising: Too often taken for granted. The College Board Review, 107, 32-36.

Metzner, B. (1989). Perceived quality of academic advising: The effect on freshman attrition. American Educational Research Journal, 26, 422-442.

National Academic Advising Association. (1994, November). Academic advising: Campus collaborations to foster retention [On-line]. http://www.nacada.ksu.edu/teleconference/teleconference.html

National Academic Advising Association. (2000). Institutional program abstracts. [On-line]. Available: http://www.nacada.ksu.edu/Awards/archives2.htm

Nichols, R. H. (1986). Effects of intensive, intrusive faculty advising on college freshmen. Dissertation Abstracts International, 06A, 2048.

Noel, L. T. (1976). College student retention-A campus-wide responsibility. NACADA Journal, 21, 33-36.

Noel, L., Levitz, R., & Saluri, D. (1985). Increasing student retention. San Francisco: Jossey-Bass.

Nutt, C. L. (2000). One-to-one advising. In V. N. Gordon & W. H. Habley (Eds.), Academic advising. A comprehensive handbook (pp. 220-237). San Francisco: Jossey-Bass.

Pardee, C. F. (1994). We profess developmental advising, but do we practice it? NACADA Journal, 14, 59-61.

Pascarella, E. T., & Terenzini, P. T. (1991). Twenty years of research on college students: Lessons for future research. Research in Higher Education, 32 (1), 83-92.

Peterson, J. V., & Nisenholz, B. (1999). Orientation to counseling (4th ed.). Boston: Allyn and Bacon.

Piller, C. (1992, September). Separate realities. MacWorld, 218-230.

Productivity, Quality and Outcomes Task Force on Advising. (1998). Report of the PQO Task Force on Advising: The university advising plan. A comprehensive, collaborative proposal. [On-line]. Available: http://www.montana.edu/aircj/report/pqo/PQOAdvising-Plan.html

Reiff, H. B. (1997). Academic advising: An approach from learning disabilities to research. Journal of Counseling and Development, 75, 433-441.

Resta, P. (1992). Organizing education for minorities: Enhancing minority access and use of the new information technologies in higher education. Education and Computing, 8, 119-127.

Romero, M. (1986). An academic advisement center as a strategy to confront freshman attrition. Dissertation Abstracts International, 47(06A), 2050.

Sayrs, D. M. (1999). An experimental analysis of the effects of an intrusive academic advising package on academic performance, satisfaction, and retention. Dissertation Abstracts International, 61(02B), 1067.

Schultz, R. A. (1989). Differences between academically successful and unsuccessful students in an intrusive academic advising program. Dissertation Abstracts International, 51(02A), 417.

Spears, M. C. (1990). A study of the effects of academic intervention on performance, satisfaction, and retention of business administration students in a public comprehensive college. Dissertation Abstracts International, 51(08A), 2656.

Steele, G., & McDonald, M. (1997). Delivery systems for academic advising [On-line]. Available: http://www.uvc.ohio-state.edu/chouse/delivery.txt

Tinto, V. (1993). Leaving college: Rethinking the causes and cures of student attrition (2nd ed). Chicago: University of Chicago Press.

Tinto, V. S. (1990). Principles of effective retention. Journal of the Freshman Experience, 2, 35-48.

Trombley, T. (1984). An analysis of the complexity of academic advising tasks. Journal of College Student Personnel, 25, 234-239.

Trombley, T. T., & Holmes, D. (1981). Defining the role of academic advising in the industrial setting: The next phase. NACADA Journal, 1, 1-8.

Virginia Polytechnic Institute and State University. (1999). University Task Force on Academic Advising [On-line]. Available: http://www.provost.vt.edu/advising/task-force.html

Wagner, C. A., & McKenzie, R. (1980). Success skills for disadvantaged undergraduates. Journal of College Student Personnel, 21, 514-520.

Walton, J. M. (1979). Retention, role modeling, and academic readiness: A perspective on the ethnic minority students in higher education. The Personnel and Guidance Journal, 58, 124, 127.

Winston, R. B., & Sandor, J. A. (1984). Developmental academic advising: What do students want? NACADA Journal, 4, 5-13.

Winston, R. B., Miller, T. K., Ender, S. C., & Grites, T. J. (Eds.). (1984). Developmental academic advising. San Francisco: Jossey-Bass.

Wyckoff, S. C. (1999). The academic advising process in higher education: History, research, and improvement [On-line]. Available: http://www.magnapubs.com/R_R/the.htm

Table 1
At-Risk Populations: Summary of Characteristics and Techniques for Intrusive Advising

At-Risk Group	Indicators Important to Advisors	Intrusive Advising Strategies
Minorities	* Declining enrollment * Presence of low self-concept; few positive expectations * Academic performance related to college satisfaction * Achievement related to preparation; not a racial problem * Lack of role models on campus	* Enhance the college-student fit * Encourage campus involvement * Suggest campus resources * Encourage positive self-concept * Avoid stereotypical attitudes/expectations * Suggest proven academic experiences * Acknowledge importance of role models
Academically Disadvantaged	* Increasing participation in higher education settings * May be dependent learners * May have low self-concept * May be deficient in basic skills * May need to experience academic success * May be hesitant to seek needed support services	* Establish trusting advising relationship * Begin with intrusive advising techniques * Discuss purposes of college early in relationship * Encourage basic skill development first * Recommend intervention programs and campus resources when needed
Students with Disabilities	* Increasing participation in higher education * One or more major life activities may be limited * May prefer to see themselves as "able" rather than "disabled" * Express need for barrier removal for full participation * Need support from peers and others	* Understand students' abilities and environmental barriers * Display positive attitudes about integration of students into higher education community

Table 1
At-Risk Populations: Summary of Characteristics and Techniques for Intrusive Advising (cont.)

At-Risk Group	Indicators Important to Advisors	Intrusive Advising Strategies
Students with Disabilities (cont.)	* Declining enrollment * Presence of low self-concept; few positive expectations * Academic performance related to college satisfaction * Achievement related to preparation; not a racial problem * Lack of role models on campus	* Encourage full participation in college * Recommend support services when needed * Act as advocate for special and campus resources
Low SES Students	* Poor self-concept * History of academic failure * Limited educational experiences * Cross-cultural limitations * Family commitments	* Teach time management skills * Provide range of academic supports * Encourage use of study groups * Employ flexibility in student-centered strategies
Probationary Students	* Poor study skills * Difficulty completing assignments * Lack of self-confidence in abilities * Place great importance on work	* Provide accurate, accessible, consistent information regarding progress in curriculum * Develop coping skills for problem-solving * Emphasis on career advising * Quality student-faculty advising experiences

Figure 1
Sample at-risk student advising questionnaire.

Advising Questionnaire

Name _____ Grade Level_____

1. List the courses in which you are currently enrolled. List your goal grade for each:

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

2. Do you see potential problem areas in any of these courses. If so, please list the course(s) and describe your concerns?

3. Of all my courses I am most worried about _____.

I am least worried about _____.

4. How academically prepared do you feel?

5. Have you had transitional difficulties since you began college? If so, please describe.

6. What are your career goals?

7. Aside from coursework, what other activities (i.e., athletics, social activities, family responsibilities, or a job)occupy your time ?

8. How well do you manage your time? How can this be improved?

9. What are your personal strengths?

10. What brought you to college at this institution?

11.What do you want to gain from your college experience?

Source: Heisserer, D. L. (1999). Advising questionnaire. Cape Girardeau, MO: Southeast Missouri State University. Reprinted with permission.